SUMMUS JOURNALS

INTERNATIONAL
SCIENTIFIC AND TECHNICAL JOURNAL INNOVATION TECHNICAL AND TECHNOLOGY

ISSN: 2181-1067

www.summusjournals.com

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

ВЛИЯНИЕ ПЛОДОРОДИЯ ПОЧВ НА РАЗЛИЧНЫЕ РАСТЕНИЯ, ВЫРАЩЕННЫЕ НА ЛУГОВЫХ ПОЧВАХ

Д. К. Комилова[1], К.Ашуров[1]
[1]Андижанский филиал Ташкентского государственного аграрного университета

Аннотация: При посеве люцерны в начале марта по растущей озимой пшеницы, при хорошем уходе и орошении дало высокие результаты. Общее количество органической массы люцерны составило 14,5 тонны на один гектар, а при втором методе т/га.

Ключевые слова: Почва, плодородия, земледелия, хлопчатник, озимая пщеница, люцерна, минеральные удобрения, вариант, гумус..

Введение

Высоких устойчивых урожаев сельскохозяйственных культур и повышение производительности труда в сельском хозяйстве зависят от плодородия почв а также уровня культуры земледелия.

Плодородие почвы не является постоянным и неизменным её качественным признаком. В наши дни при правильном воздействии человека на культурные орашаемые почвы условия ее плодородия должно непрерывно повышаться и обеспечивать прогрессивный рост урожайности сельскохозяйственных культур.

В.Р.Вильямс [2] указывал, что основной вопрос в системе земледелия – это создание структуры почвы. Задачу восстановления прочности структуры на основе правильной чередования культур.

Посев бобовых (люцерна) и злаковых культур сильно ветвистыми корнями раздробляют пахотный горизонт на сравнительно мелкие комки. В условиях севооборота решаются следующие агротехнические задачи:

- улучшения плодородия почвы.
- накопление усвояемых питательных элементов растений и очищение полей от сорняков.
- повышения урожайности посевов и качества получаемых продуктов.

В настоящее время в условиях орошаемой земледелии лучшими предшественниками хлопчатника являются озимая пшеница и люцерна.

И.В.Якушкин [5] указывал, повышения плодородие почв успешно обеспечивается при посеве бобово – злаковых смесей, корневые остатки которых отличаются богатством питательных веществ. При совместном выращивании этих культур восстанавливается структура для культур возделываемых после этих трав а также улучшается обеспеченность водой и питательными веществами.

Разные растения возделываемые на поливных полях, предъявляют неодинаковые требование к почве и они тоже различаются по уровню плодородия.

В целях лучшего удовлетворения потребности растений, надо размещать их посевы так, чтобы каждый вид растений получил наилучшие условия для роста, развития а также давал больше продуктов с

* Corresponding author: dkomilova_77@mail.ru

высоким качеством. Как показывал многовековой опыт возделывания полевых культур на одних и тех же полях с каждом годом все труднее удерживать высокие урожай.

Как показывают длительные опыты в течении 90 лет проводимые в УзПИТИ (Союз НИХИ) с хлопчатником и другими культурами хлопкового комплекса, если их менять местами, можно создать хорошие условия для получения высокого урожая.

В неудобренном варианте (контроль) средний урожай хлопка-сырца составила 14-16 ц/га, при применении N-250, Р-170 и К-125 кг/га за 20 лет (1986-2006) урожайность равняется в среднем 29-35 ц/га, а после трехлетней люцерны в 9-ротации составил 40,1 ц/га или 2,5 раза больше. Полученные результаты отдельных исследователей свидетельствуют, что правильное размещение полевых культур (озимая пшеница, люцерна, ячмень, горох) способствуют увеличению растительной массы остающееся в почве [1,3,4]

МЕТОДЫ ИССЛЕДОВАНИЙ

В условиях рыночной экономики первоочередной задачей нашей республики стала решения проблемы зерновой независимости. По этому пришлось существенно сократить площади посева основной культуры хлопчатника. В этой связи вместо травопольной пропашной системы земледелия, была принята интенсивная система, посев хлопчатника и зерно-колосовых культур.

Чередование растений с разной корневой системой и разной способности усваивать питательные элементы (NPK и др.) позволяет лучше использовать плодородие почвы. [3]

После уборки урожая растения оставляет в почве и на поверхности поля большой часть созданного ими органического вещества в виде корней, пожнивных остатков и опавших листьев. В месте с ними в почву возвращается значительный часть питательных элементов, веществ. Оставленное органическое вещество оказывает существенное влияние на улучшение физических свойств почв.

На основании вышеуказанных нами были проведены полевые опыты в Андижанской области. Почвы опытного участка орошаемые светло луговые, средне суглинистого механического состава. Содержание гумуса в пахотном слое (0-35 см) почвы 0,964%, общий азот-0,118%, фосфора-0,156% подвижные формы, P_2O_5 – 32,4 и K_2O – 240 мг/кг почвы.

Перед полевым опытом поставлен цель – сравнительное изучение осеннего посева люцерны с уборкой и без уборки стеблей хлопчатника с озимой пшеницей, а также весенний посев люцерны по растущей озимой пшеницы. Во всех вариантах опыта применяли одинаковую годовую норму минеральных удобрений, азота-200 кг/га, фосфор-170 кг/га, калия-100кг/га по действующему веществу.

Полевые опыты, учеты и наблюдения за растениями хлопчатника проводили по методике полевых опытов с хлопчатником статистическую обработку полученных данных по Б.Доспехову.

РЕЗУЛЬТАТЫ ИССЛЕДОВАНИЙ

Во всех почвенно – климатических районах нашей страны планомерно внедряется научно обоснованные системы земледелия. С каждым годом возрастает роль науки и возделывания сельхоз культур переводится на интенсивную основу.

При интенсивном возделывании хлопчатника и зерновых культур очень важное значение имеет сохранение и повышение плодородии орошаемых почв. Известно, что в условиях Средней Азии и в частности Узбекистана самым лучшим предшественником хлопчатника и зерно колосовых культур является люцерна.

Полученные данные с полевых опытов по изучению различных сроков сева люцерны показывают, что мы добились желаемого результата. Но, растения люцерны выращенные (посев проведен 24 октября) в осенний период были очень слабые, так как они зимой часто подвергались влиянию холодов и их определенная часть погибли, потери из-за холодов составило 15,3%, а на варианте, где посев проведен 12 сентября после первого сбора хлопка потеряно растений-12,1%. Но, при посева люцерны тем же способом, во второй половине марта (20.03)

в связи потеплением температуры почвы и воздуха, а также за счет быстрого роста растений падение растений составило всего 7,8-9,4%.

При посева люцерны весной (в марте) с одного гектара урожай сена 72,3 ц. Самый высокий урожай сена был получен при посева люцерны после очистки поля от стебли хлопчатника и по осеннему посеву пшеницы (вариант 10) сена люцерны составило 76,7-79,8 ц/га.

Как, показывают результаты урожайности сена в осенних вариантах посева люцерны была самим низким и она равнялась 65,5 центнер с одного гектара.

ВЛИЯНИЯ СПОСОБОВ И СРОКОВ ПОСЕВА НА ПОЖНИВНЫЕ И КОРНЕВЫЕ ОСТАТКИ ЛЮЦЕРНЫ, Ц/ГА

Варианты опыта	Масса корневых остатков люцерны по горизонтам почв, см						Накопление органической массы на поверхности почв до вспашки		Всего накоплено органической массы
	0-15	15-30	30-45	45-60	Итого 0-30	Итого 0-60	Осенью	весной	
1	28,1	17,3	11,5	5,2	45,4	62,1	20,2	-	82,3
2	33,6	22,4	13,4	5,9	56,0	75,3	23,7	-	99,0
3	31,6	22,1	13,2	4,8	53,7	71,7	22,6	-	94,3
4	27,4	19,0	10,9	4,9	46,4	62,2	21,4	28,3	111,9
5	35,1	23,7	14,8	5,8	58,8	79,4	24,1	32,6	136,1
6	34,2	22,7	13,5	5,5	56,9	75,9	21,9	29,9	127,7
7	27,7	20,2	10,7	4,6	47,9	63,2	21,5	29,7	114,4
8	25,9	16,2	10,7	4,8	42,1	57,6	22,3	-	79,9
9	30,7	23,8	14,8	6,1	60,5	81,4	26,4	-	107,8
10	33,8	22,8	13,2	5,4	56,6	75,2	22,9	-	98,1
11	36,2	25,0	15,1	5,5	61,2	81,2	24,3	33,6	139,7
12	35,1	24,5	14,3	5,2	59,6	79,1	23,4	33,1	135,6

При посеве люцерны в начале марта по растущей озимой пшеницы, а также осенний посев на фоне очищенной от стеблей хлопчатника и растущей пшеницы, при хорошем уходе и орошении дало высокие результаты. При первом методе посева общее количество органической массы люцерны составило 13,7 тонны на один гектар, а при втором методе 14,5 т/га.

Когда люцерна была посеяно осенью количества органической массы равнялся 10,2-11,4 т/га.

Как показывают результаты в коротком ротации севооборота (1:2) хлопчатника и зерновых культур (озимая пшеница) и возделывания между ними бобовой культуры люцерны способствует снижению объемной массы почвы на 0,02-0,04 г/см^3. На варианте без люцерны в пахотном горизонте (0-30 см) почвы, её объёмная масса в начале вегетации хлопчатника составила 1,38 г/см^3, а в конце вегетации равнялся 1,40 г/см^3.

В полевых исследований, объёмная масса почвы с вариантами опыта выращивания люцерны составили от 1,34-1,38 г/см^3. Такая закономерность сохранилась и на второй год.

Благодаря выращиванию люцерны покровно с озимой пшеницей отмечено увеличение содержание водостойких агрегатов размером 0,25 мм на 1,1-1,2 раза в пахотном (0-30 см) слое почвы.

Чередование сельскохозяйственных культур по системе 1:2 «хлопчатник-зерновые» и совместное выращивание люцерны способствует улучшения содержания азота и гумуса в почвах опытного поля.

На основании проведенного полевого опыта и результатов агрохимических анализов можно отметить, что при чередование культур в хлопковом комплекса по схеме 1:2 и посев люцерны покровно с озимой пшеницей способствует улучшение производительной способности светло-луговых почв.

ИСПОЛЬЗОВАННАЯ ЛИТЕРАТУРА

1. Ботиров М.У. - «Эффективность посева люцерны в интенсивной системе чередования культур». Н.Ж. Сибирский вестник сельскохозяйственной науки. 2016 г. №1- с.113-117.

2. Вильямс В.Р. – Травопольная система земледелия собранные сочинений. т.VII м. 1951 г. -с.127-130.

3. Воробев С.А. – Севообороты – основа агротехники. М. «Знание» 1968 г. 31. с.

4. Мухамеджонов М.В. – «Севообороты в орошаемых районах хлопководства» т. 1959 г. -с.34-35.

5. Якушкин И.В. – «Травопольная полевые и кормовые система земледелия севообороты» м. 1950 г. -с.42-44

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

THE EFFECT OF SULPHUR ON THE BRANCHING OF SOYBEAN VARIETIES

Atabayeva Khalima Nazarovna[1], Khayrullaev Sardor Shamsiddin o'g'li[2], Usmonova Shohista Usmon qizi[3].

[1,2,3]Tashkent State Agrarian University*Tashkent, Uzbekistan.*

Abstract. In this paper, it is described that the branching of soybeans was higher than that of the control variant when the three types of sulfur norms were applied in suspension by the background of mineral fertilizers in the conditions of meadow-swamp soils.

Keywords: soybean, variety, meadow-swamp, mineral fertilizers, sulfur, branching.

Introduction

No.PD-2832 of the President of the Republic of Uzbekistan dated March 14, 2017 "On measures to increase the sowing of soybeans and soybeans in the Republic in 2017-2021", September 15, 2017 "On measures for the rational placement of agricultural crops for the 2018 harvest" and on the volume of agricultural production No. PD-3281 and other normative legal acts, this practical project will serve in the implementation of the tasks set out [1].

Due to the positive biological properties of soybeans in the country, special attention is paid to the method of sowing, norms of mineral fertilizers in the creation and improvement of technology for growing soybeans as a secondary crop. Re-cultivation of soybeans requires scientific research on additional use of water and land resources.

Literatures review. Deficiency of micronutrients increases the resistance of soybean plants to diseases. When fully supplied with micronutrients, the number of flowers and fruits in plants increases, ensuring full maturity. Helps transport nitrogen and photosynthesis products in the plant. If the amount of mobile barium in the soil is less than 0.3–0.6 g / kg, it is necessary to feed with barium. Molybdenum promotes the development of the root system in the early stages of the plant, accelerates growth, in particular, activates the development of tubers, it activates the assimilation of nitrogen from the air [5].

Micronutrients optimize plant nutrition. Increases resilience to stress, activates growth. Such cases are also observed in the soybean plant [2, 3, 4].

Table 1

The effects of sulfur micronutrient on the branching of soybean varieties,2018

№	Options	Development periods		
		Branching, a piece	Flowering, a piece	Podded, a piece
	"Dena" variety			
1	Control	2.2	2.0	2.0
2	Background-$N_{50}P_{100}K_{70}$	2.3	2.7	2.1
3	Background+S-1,5	3.0	3.1	2.1
4	Background+S-3,0	3.2	3.1	3.3
5	Background+S-4,5	2.8	2.9	2.8
	"Nafis" variety			
1	Control	1.8	1.9	2.2
2	Background-$N_{50}P_{100}K_{70}$	2.5	2.3	2.4
3	Background+S-1,5	2.2	2.4	2.5
4	Background+S-3,0	2.3	2.4	2.6
5	Background+S-4,5	2.4	2.4	2.6

Place and conditions of the experiment. The experiments were conducted in the fields of scientific experiments of the Rice Research Institute. The experimental field is located in the south-eastern part of the Tashkent region, 15 km from Tashkent, on

the left bank of the “Chirchik” River on the Greenwich scale at 69018 'east longitude and 41020' north latitude**.**

The soil layers are characteristic of the oasis and are swamp-type soils. There are also mixtures of large and small stones and sand in different depth layers. These soils are due to the typical excess moisture conditions on the left bank of the river and are very suitable for rice cultivation. Soil is meadow, the soil of the experimental field is not saline, the plowing layer is 30-40 cm. The pH of the solutions in the soil is in the range of 6.8-7.3 units and is heavy clay in mechanical composition. The experiments are conducted on the 2nd edge of the 13th card.

Experimental method. The soil layers are swamp-type soils that are characteristic of the oasis. There are also mixtures of large and small stones and sand in different depth layers. These soils are due to the typical excess moisture conditions on the left bank of the river and are very suitable for the cultivation of agricultural crops. Soil is meadow. The soil of the experimental field is not saline, the driving layer is 30-40 cm. The pH of the solutions in the soil is in the range of 6.8-7.3 units and is heavy clay in mechanical composition. The experiments were performed on the 1st edge of the 13th card.

The field experiments consisted of 4 rows of piles 10 m long, 2.4 m wide, 4 rows, the total area of each pile was 24.0 m2, of which 2 rows in the middle and 2 rows of protection rows at the edges. Variants are placed by randomization method.

Conducting field calculations, calculations and observations were carried out on the basis of "Methodological guidelines of the State Commission for Variety Testing of Agricultural Crops (1989)", "Methods of conducting field experiments (UzPITI, 2007)" and "Methods of field experiment" by B.A.Dospekhov.

Experimental results. The branching of soybean varieties depends on their biological properties. But the elements of cultivation also affect the branching.

In 2018, in the branching phase of the soybean, the branching of the “Orzu” variety was 2.2 in the control variety; increased to 0.1 in the background variant; sulfur was observed to increase by 0.8–1.0 relative to the control variant, with the highest value observed in the medium norm. During the flowering period, the number of branches in the control variant was 2.0, and in the background variant it increased to 0.7.

Sulfur was observed to increase by 0.9–1.1 compared to the control variant, with the highest value being observed at low and medium norms.

During the period of podded, the number of buds in the control variant of the Orzu variety was 2.0, which increased by 0.1 on the background of mineral fertilizers. In exchange for sulfur, the number of buds increased by 0.1-1.3 compared to the control variant.

So, all the micronutrients and mineral fertilizers had a positive effect on the branching of the soybean variety "Orzu".

The branching of the “Nafis” variety of soybean was 1.8 in the control variety; increased to 0.70 in the background option; an increase of 0.40–0.60 compared to the control option was observed when sulfur was applied, with the highest value being observed in the medium and high range. During the flowering period, the number of branches in the control variant was 1.9, and in the background variant it increased to 0.4. When sulfur was used, it was observed to increase by 0.5 in all variants compared to the control variant, the highest value was observed in all norms.

During the period of podded, the number of branches in the control variant of Nafis variety was 2.2, which increased by 0.2 on the background of mineral fertilizers. In exchange for sulfur, the number of buds increased by 0.3–0.4 compared to the control variant, with the highest rate being observed at medium and

Table 2

The effects of sulfur micronutrient on the branching of soybean varieties,2019

№	Options	Development periods		
		Number of branches, a piece	Flowering, a piece	Podded, a piece
		“Orzu” variety		
1	Control	1.2	1.8	2.4
2	Background-$N_{50}P_{100}K_{70}$	1.5	2.0	2.6
3	Background+S-1,5	1.4	2.1	2.7
4	Background+S-3,0	1.5	2.2	3.1
5	Background+S-4,5	1.6	2.3	2.5
		“Nafis” variety		
1	Control	1.2	2.0	2.2
2	Background-$N_{50}P_{100}K_{70}$	1.4	2.2	2.4
3	Background+S-1,5	1.5	2.1	2.5
4	Background+S-3,0	1.6	2.4	2.4
5	Background+S-4,5	1.7	2.5	2.3

high rates (Table 1).

In 2019, the branching of the soybean variety “Orzu” in the control variety was 1.2 at the beginning of the branching period; in the background option increased to 0.30. During the flowering period, the number of branches in the control variant was 1.8, and in the background variant it increased to 0.2.

When using sulfur, an increase of 0.3-0.5 compared to the control option was observed. the highest rate was observed at medium and high standards.

During the period of podded, the number of branches in the control variant of the Orzu variety was 2.4, which increased by 0.2 on the background of mineral fertilizers. In exchange for sulfur, the number of buds increased by 0.3-0.7 compared to the control option.

So, all the micronutrients and mineral fertilizers had a positive effect on the branching of the soybean variety "Orzu".

The branching of the “Nafis” variety of soybean was 1.20 in the control variety; increased to 0.20 in the background option; an increase of 0.30–0.50 relative to the control option was observed when sulfur was used, with the highest value being observed at medium and high standards. During the flowering period, the number of branches in the control variant was 2.0, and in the background variant it increased to 0.2. Sulfur was observed to increase by 0.1–0.5 relative to the control variant, with the highest value being observed at medium and high standards.

During the period of podded, the number of branches in the control variant of Nafis variety was 2.2, which increased by 0.2 on the background of mineral fertilizers. In exchange for sulfur, the number of buds increased by 0.1-0.3 compared to the background variant (Table 2).

Conclusion. Sulfur has a positive effect on the branching of soybean varieties on the background of mineral fertilizers, and in 2018 the number of branches in the variety "Orzu" increased by 0.8-1.3 compared to the control option due to the micro element sulfur. In the "Nafis" variety, this figure was 0.3-0.4, and good results were obtained from medium and high sulfur standards.

In 2019, these indicators increased by 0.3-0.7 in the variants of sulfur compared to the control in the "Orzu" variety, increased by 0.1-0.3 in the "Nafis" variety, and good results were obtained from the medium and high standards of sulfur.

References

1. Mirziyoyev.Sh.M. Report of the Cabinet of Ministers of the Republic of Uzbekistan at the enlarged meeting on the results of socio-economic development of the country in 2016, a comprehensive analysis and identification of the most important directions and priorities of the Government's economic and social program for 2017.-T :. 2017 y.
2. Atabaeva X. N. "The effect of the symbiotic properties of soybeans on the environment." - T. Scientific collection, Tashkent State Agrarian University, 1997, 43p.
3. Barchukova A.Ya., Tabibullaev E.Sh., Tsikunkova T.V., Xrenovskiy V.Yu. / Application of new drugs for inoculation of semen soi // Zemledelie. №3, S.26-27
4. Vavilov P.P. Posypanov G.S. - Bobovye kultury i problemy rastitelnogo belka. –M .: Rasselxozizdat, 1983, 256 p.
5. Vinogradov B.I et al. Rastenievodstvo-praktikum.-T .: Mehnat, 1987

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

THE EFFECT OF STIMULATORS ON THE LOCATION OF THE FIRST POD OF SOYBEAN VARIETIES

Khayrullaev Sardor Shamsiddin o'g'li[1], Usmonova Shohista Usmon qizi[2].

[1,2]Tashkent State Agrarian University., Tashkent, Uzbekistan.

Abstract. Depending on the life cycle of plants, biostimulants accelerate plant development in many of the following ways (from seed germination to plant maturation), with which they can apply plant, seed, soil, or growth factors that can increase plant nutrient uptake and proper growth. This work is ensured by the reproduction of additional soil microorganisms and the improvement of metabolic efficiency, root development and nutrient supply. This article presents the level of importance of our scientific research in the field of agriculture, the place and methods of experimentation, the effect of stimulants on the height of the first legume placement of soybean varieties and the results obtained from them.

Keywords: soybean, bio stimulants, "Radimax", "Gummat", "Tecamin", "Algora", developmental periods, location of first pod

Introduction

Today, the soybean plant is a very important plant in the world. It is grown in more than 60 areas around the world. The total area under soybeans is 1204700 hectares in Canada, 21474870 hectares in Brazil, 750000 hectares in India, 29943010 hectares in the United States, 430000 hectares in Russia, and 173000 hectares in Krasnodar region. At the beginning of the XXI century, it is the 4th largest crop after wheat, rice and corn.

According to the Resolution of the President of the Republic of Uzbekistan dated July 24, 2017 No PD-2832 dated March 14, 2017 "On measures to increase the sowing of soybeans and soybeans in the country in 2017- 2021", the area under soybeans is expanding every year. [1]

In 2017-2021, it is planned to plant soybeans in the country as a main crop on 92667 hectares and as a secondary crop on 40557 hectares. In particular, the planting of 12000 hectares in 2017, 18.5 thousand hectares in 2018 and 20000 hectares in 2019 is a clear proof of this.

Growth regulators have the ability to positively affect the yield and quality of soybean seeds. They increase the plant's resistance to water, temperature and other adverse conditions. Maximum efficiency is achieved by step-by-step processing of seeds [2].

The use of growth regulators increases the productivity of the plant and increases its tolerance to adverse external conditions. Growth regulators increase the productivity of agricultural crops and their resistance to adverse environmental conditions.

At present, various complexes are being created at the industrial level, which include minerals, micro-fertilizers, growth regulators, stimulants and seed adhesives. This complex of complex substances is used when processing seeds are saved when given such processing. The use of a set of growth-regulating substances should ensure not only the productivity of the plant, but also its safety [3].

PLACE, CONDITIONS AND METHOD OF

THE EXPERIMENT

The experiments were conducted in the fields of scientific experiments of the Rice Research Institute.

The experiment site is located in the southeastern part of the Tashkent region, 15 km from Tashkent, on the left bank of the “Chirchik” River, on the Greenwich scale on the geographical location in the plains of 69018 eastern longitude and 41,020 northern latitudes.

The soil layers are swamp-type soils characteristic of the oasis. There are also mixtures of large and small stones and sand in different depth layers. Soil is meadow. The soil of the experimental field is not saline, the driving layer is 30-40 cm. The pH of the solutions in the soil is in the range of 6.8-7.3 units and is heavy clay in mechanical composition. The experiments were performed on the 2nd edge of the 13th card.

Field experiments consisted of 4 rows of piles 10m long, 2.4 m wide, 4 rows, the total area of each pile was 24.0 m^2, of which 2 rows in the middle is countable row and 2 rows of protection rows at the edges. Options are placed by randomization method. Conducting field calculations, calculations and observations were carried out on the basis of "Methodological manual of the State Commission for Variety Testing of Agricultural Crops (1989)", "Methods of field experiments (UzPITI, 2007)" and B.A.Dospekhov's "Methodology of field experiment". All results obtained from the research were analyzed by variance according to the method of B.A.Dospekhov.

RESULTS

In legume crops, the placement of the first lower legume is important because there will be no possibility of harvesting when the legumes are harvested at a low position. The location of the lower pods can be a biological feature of the variety, and the location of the lower pods can also change under the influence of cultivation technological elements (Table 1).

Table 1

The effect of growth regulators on the location of the first pod of soybean varieties

№	Options	“Orzu” variety	“Nafis” variety
1	Control	12.8	14.7
2	Radimax+seed	15.8	17.2
3	Radimax+seed+bud	15.9	17.6
4	Gummat+seed	15.2	17.2
5	Gummat+bud	15.0	16.9
6	Tecamin+seed	14.9	16.8
7	Algora+bud	15.6	17.1

In the experiment, the lower first pod of Orzu variety was located at 12.8 cm in the control variant. In the “Radimax + seed” and “Radimax + seed + bud” variants it is located at a height of 15.8-15.9 cm, respectively, and is 3-3.1 cm higher than in the control variant, in the options "Gummat + seed" and "Gummat + bud" it was found that it was located at a height of 15.0-15.2 cm, which is 2.2-2.4 cm higher than the control. In the "Tecamin + seed" variant, it is located at a height of 14.9 cm, which is 2.1 cm higher than in the control variant. In the variant "Algora + bud" it is located at a height of 15.6 cm, which is 3.1 cm higher than in the control variant. This is a positive result, it is desirable that in modern combines when harvesting is located the lower first pod is higher than 15 cm.

In the experiment, the lower first pod of the Nafis variety was located at 14.7 cm in the control variant; In the “Radimax + seed” and “Radimax + seed + bud” variants it is located at a height of 17.2-17.6 cm, respectively, and 2.5-2.9 cm higher than in the control variant. In the variants "Gummat + seed" and "Gummat + bud" it was found that it was located at a height of 16.9-17.2 cm, 2.2-2.5 cm higher than the control. In the "Tecamin + seed" variant, it is located at a height of 16.8 cm, which is 2.1 cm higher than in the control variant. In the variant "Algora + bud" is located at a height of 17.1 cm, which is 2.4 cm higher than in the control variant. This is a positive result. It is possible to harvest a fine variety without destroying it.

CONCLUSIONS

1. The location of the lower first pod in soybean varieties is 12.8-15.9 cm in Orzu variety, 3-3.1 cm in Radimax stimulator, 2.2-2.4 cm in Gummat stimulator, 2.1 cm in Tecamin stimulator and 3.1 cm in Algora stimulator was found to be high. The most effective results were observed in Radimax, Gummat and Algora bio-simulators.

2. The location of the lower first pod was detected 14.7-17.6 cm in the “Nafis” variety, which was 2.5-2.9 cm higher in the Radimax

stimulator, 2.2-2.5 cm higher in the Gummat stimulator, 2.1 cm higher in the Tecamine stimulator, and 2.4 cm higher in the Algora stimulator than in the control variant. The most effective results were observed in Radimax, Gummat and Algora bio-simulators.

REFERENCES

1. Resolution of the President of the Republic of Uzbekistan dated March 14, 2017 No PD- 2832 "On measures to organize the sowing of soybeans and increase soybean production in the country in 2017-2021." Tashkent, "Uzbekistan", 2017.

2. Ran O.R, Xoxoeva N.T. Application of biological preparations in sowing soybean // Dostijeniya nauki i teknik APK. 2009. №18. S. 26-27.

3. Novitskaya.N.V., Shchuchka R.V, Shapoval, Djelisyuk.A.V. Urojaynost soi v zavisimosti ot elementov teknologii na chernozemax tipichnyx lesostepi Ukrainy // Vestnik. Altayskiy GAU, №5. Series 11.2015.

4. https//www/agritecno.es

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

MARKETING STRATEGY TO INCREASE THE EFFICIENCY OF LOCAL INDUSTRIAL ENTERPRISES

Boyjigitov Sanjarbek Komiljon o'g'li
Assistant department of Marketing

Abstract: The article highlights the importance of marketing strategy in local industrial enterprises, the role of marketing strategy in improving enterprise efficiency. The SWOT analysis provided insights into areas of marketing strategy in improving enterprise efficiency.

Keywords: marketing, strategy, marketing strategy, SWOT analysis, industrial enterprises, economic mechanism.

Introduction

Due to the large-scale reforms being carried out in the economy of our country and the prudent economic policy pursued, the pace of rapid development in the world is maintained. In today's world of pandemic economic downturn in many countries, despite the serious problems that still remain in the world economy, including in 2019, Uzbekistan continued to develop its economy at a steady pace, consistently improved living standards, competitive in the world market. firmly holding their position has been identified as an important factor.

Indeed, in recent years, the forecast indicators for all indicators of economic development of the country are being met. It has been taken to a new stage in the development of the economy. At a time when the world economy is developing at a relatively low pace, the achievements of economic reforms in our country are due to the tireless work and efforts of our people and the leader of our country.

Along with other sectors of the economy, the industrial sector is developing rapidly in our country. Great attention is paid to the development of industry, improving the quality of products, creating a pure competitive environment among enterprises, which are key factors in the development of the country's economy and give a great impetus to the development of other sectors and industries of the economy. As in other industries and sectors, attention is paid to modernization in industry, its various branches and enterprises, improving product quality, the correct choice of marketing strategies in the enterprise, setting forecast indicators through strategic analysis, technical and technological renewal.

The implementation of this work requires the widespread use of marketing activities in every industrial enterprise and the effective operation of industrial enterprises through marketing strategies.

Analysis of the relevant literature

In this regard, it should be noted that the Decree of the President of the Republic of Uzbekistan dated February 7, 2017 PF-4947 "On the Strategy for further development of the Republic of Uzbekistan" defines the Action Strategy for the five priority areas of development of the Republic of Uzbekistan for 2017-2021. Achieving the goals set in the Action Strategy, first of all, will increase the efficiency of marketing activities of enterprises, which, in turn, will require the development and implementation of marketing strategies. A strategy is a real program of action for renewal processes [1].

Marketing strategy is a social process aimed at adapting the company's capabilities to the market, meeting the needs of the enterprise through the development of future product, price sales, communication development strategies,

*Corresponding author: 00_bek94@mail.ru

free competitive exchange of consumer needs and desires.

It should be noted that scientists from the prestigious American Marketing Association, which operates in the field of marketing: Marketing strategy is defined as an indirect or indirect statement indicating the direction of achieving the goals of the enterprise by brand or product line. In addition, the marketing strategy is also shaped by a number of strategies depending on its definition types. One of them is the growth strategy of the enterprise [2].

According to another well-known Uzbek scientist Sh.J. Ergashkhodjaeva, marketing strategy is a process of analysis of the company's capabilities, selection of goals, development of plans, implementation of marketing measures and control over their implementation [3].

Taking into account the above points, we considered it necessary to improve the marketing strategy in order to increase the sustainability and efficiency of marketing activities in enterprises.

Research methodology

In writing the article, an attempt was made to explain the problem using methods such as analysis, synthesis, and logic. The information required for the study was obtained mainly from foreign literature, statistical and regulatory databases.

Analysis and results

Nowadays, any strategy can be seen in an innovative way for industrial enterprises developing a strategy for the first time, which is a sign of a new way for an organization to adapt to the external environment. The strategy of the organization aimed at achieving innovation goals is also interpreted as an innovation process. A comparative study of different strategic plans and a comparison of the state of their individual components can be used to determine the degree of novelty of the strategies.

According to the analysis of the data of our sociological survey of heads of industrial enterprises, the main problems of their activities have been identified.

We analyze the activities of JSC "Jomboy Don Mahsulotlari" in 2020, which developed its own development and began to implement it. The company is currently successfully developing, has the necessary material, technical and qualification base. However, it faces seasonal fluctuations in demand and carries out expensive advertising activities and incurs high costs on some of its products. It provides information on the position of the company in the order portfolio, the status of competitors and the prospects of the firm in the field of business.

Currently, the process of studying the internal and external environment of industrial enterprises serves as a basis for filling the SWOT-analysis matrix [4]. In the process of filling the matrix, a pair of combinations is formed that direct the researcher to develop a strategy for exploiting the strengths of the enterprise to take advantage of the opportunities that arise in the external environment.

With this in mind, we have identified the following four main strategies in the SWOT analysis of JSC “Jomboy Don Mahsulotlari”, comparing the strengths of the internal environment of the company with the capabilities of the external environment: maintaining the company's reputation based on competitive advantages and brand ; maintaining the level of consumer confidence based on the knowledge and skills of employees; promotion of "star" products using trademarks and qualified personnel; achieving the profitability of mature products at the expense of reliable suppliers. Comparing the strengths of the enterprise in the internal environment with the risks in the external environment allows to expand the agency network. To do this, it is important that agencies recognize the benefits of cooperation with JSC "Jamboy Don Mahsulotlari". The company should intensify its efforts to attract consumers to Jambay district and other regions of the region to ensure that the products it offers to the market are in demand. At present, the firm needs to finance market research to develop relevant areas. The search for new reliable partners and investors who are not in high demand for the price can provide the enterprise with cheaper types of raw materials as a result of direct contracts with suppliers of raw materials.

It is necessary to eliminate the activities that are in decline in the life cycle of the enterprise and direct the available funds to the development of new products. To minimize the

* Corresponding author: alisher@rambler.ru

impact of new competitors, the enterprise needs to focus on new reliable partners and investors and improve service standards.

Table 1

SWOT analysis of JSC "Jomboy Don Mahsulotlari"

Strengths	Weaknesses
• good knowledge of the market; • has a material and technical base; • sufficiency of specialists; • many years of experience; • location; • provide various services to its employees; • product quality.	• the activity has a short working period; • not working at full capacity; • weakness of marketing activities.
Opportunities	**Threats**
• expansion of activities; • great experience; • launch of new products; • development of marketing research; • increase production capacity.	• climate change; • more and more competitors; • general economic situation; • failure to comply with the terms of the contract.

The above table reflects the strengths and weaknesses of the company, as well as opportunities and threats.

Conclusion

As a result of the SWOT analysis of JSC "Jamboy Don Mahsulotlari" we propose the following economic mechanism of marketing strategy for its further development.

General Strategy: To gain a strong position in the market by providing consumers with higher quality industrial products than competitors

Table 2

The structure of the economic mechanism of marketing strategy of JSC "Jomboy don Mahsulotlari"

№	The structure of marketing strategies	Features of the implementation of marketing strategies
1.	**Customer integration strategy**	1. Expansion of the regular customer base: • development of a system of discounts; 2. Expansion of the network of intermediaries: • improving the quality of service; • bonus program.
2.	**A fast-growing strategy for a highly competitive business in a fast-growing market**	1. Establishment of an advertising campaign: • advertising on television and abroad; • advertising in central publications; • advertising in the regional press; 2. Reduction of prices: • reduction of product prices; • conclude direct agreements with partners and investors.
3.	**An industry differentiation strategy that does not have good competitive positions but works in promising markets**	1. Reduction of prices (reduction): • reduction of product prices (reduction); • concluding direct agreements with partners and investors; 2. Organization of types of advertising: • improving product distribution channels.

* Corresponding author: alisher@rambler.ru

4.	**Concentric diversification strategy**	1. Conduct marketing research: • demand study; • production of quality products; 2. Formation of logistics service; 3. Concluding agreements with partners and investors.
5.	**Strategies for differentiating highly competitive business in mature markets**	1. Reduction of prices (reduction): • reduction of product prices; • concluding direct contracts with partners; 2. Development of new programs based on existing ones; 3. Establishment of an advertising campaign: • advertising in foreign and local press; • organization of types of advertising; • develop sales promotion programs.
6.	**Staff qualifications development strategy**	1. Staff training: • creating an individual training schedule for each employee; • involvement of managers at all levels in the implementation of the strategy; 2. Development of requirements for the quality of customer service.
7.	**Product brand promotion strategy**	1. Marketing research: • identify promising sources of product brand promotion; • conducting a survey of consumers on the appeals of JSC “Jomboy Don Mahsulotlari”; 2. Establishment of an advertising campaign: • advertising in the media; • advertising on television.

The program of measures for the implementation of the marketing strategy of JSC "Jamboy Don Mahsulotlari" is given in detail.

In practice, the possible options of enterprise strategies do not usually exclude each other and may be interrelated in different ways. It is necessary to be relative to the alternatives of enterprise development, as there may be a lack of resources to develop several opportunities simultaneously. Research shows that three important features are needed to create a strategic mechanism for the development of an industrial enterprise:

a) innovative goals and results;

b) strategic means of achieving the goal;

c) innovation management, which ensures the continuous occurrence of innovative activities.

An important factor is that JSC "Jamboy Don Mahsulotlari" today chooses the right strategic path based on its capabilities. The company will have the opportunity to achieve high profits by repeatedly modernizing itself without lagging behind its competitors and modern production structure.

In conclusion, the full use of marketing strategies of the enterprise can lead to the formation of demand for enterprise goods, acceleration of the production mechanism, the development of marketing elements, stabilization of sales processes, consumer growth, the introduction of specific incentives for consumers. Therefore, by developing and selecting a marketing strategy, it is intended to attract more existing and potential customers.

Reference

* Corresponding author: alisher@rambler.ru

1. Speech by President of the Republic of Uzbekistan Shavkat Mirziyoyev at the 72nd session of the United Nations General Assembly on 19 September. http://uza.uz/oz/politics/zbekiston-prezidenti-shavkat-mirziyeev-bmt-bosh-assambleyasi-20-09-2017.

2. Marketing Management, Second Edition Published by McGraw-Hill Education,2 Penn Plaza, New York, NY 10121. Copyright © 2015 by McGraw-Hill Education. All rights reserved. Printed in the United States of America.

3. Strategic marketing. Ergashxodjaeva Sh.Dj.-T.:“IQTISODIYOT”, 2019 - 236 p.

4. Современный стратегический анализ : учебное пособие / Е.Ю. Кузнецова [и др.] ; под общей ред. проф., д-ра экон. наук Е.Ю. Кузнецова.— Екатеринбург : Изд-во Урал. ун-та, 2016.— 131 с.

5. Арутюнова Д.В. Стратегический менеджмент. Учебное пособие. Таганрог: Изд-во ТТИ ЮФУ, 2010. 122 с.

* Corresponding author: alisher@rambler.ru

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

POMEGRANATE JUICE, DEFECTS, IMPROVING OF PRODUCING TECHNOLOGY

[1]САТТАРОВ Ф.Р., [2]АШИРОВ М.И.
[1]Исследователь, Самаркандский институт ветеринарной медицины.
[2]Доктор сельскохозяйственнқх наук, профессор, академик РАЕН, Узбекский НИИ животноводства и птицеводства.

Аннотация: Исследованиями выявлено, что уровень молочной продуктивности и выход молочной продукции на каждые 100 кг живой массы симментальских коров взаимосвязан с производственным типом. У коров молочного типа удой за лактацию соответственно на 672,5 и 958,5 кг, 4%-ного молока на 507,4 и 735,4 кг выше, выход на каждые 100 кг живой массы молока на 164,9 и 228,7 кг больше,чем у сверстниц молочно-мясного и мясо-молочного типов. Полученные данные свидельствуют о высокой эффективности использования коров молочного типа в целях производства молока.

Ключевые слова: нарастающей потребности, использования потенциала, породы, животноводческой продукции.

Введение. В обеспечении нарастающей потребности населения в высокопитательной животноводческой продукции важнейшее значение приобретает наращивание объемов производства высококачественной животноводческой продукции. В этих условиях создание высокпродуктивных стад с высокой племенной ценностью используемых животных выдвигается на первый план. Это требует улучшение селекционно-племенной работы, использование признанных пород-лидеров с высоким генетическим потенциалом продуктивности и высокоценных быков-улучшателей в подборе, и конечно же, обекспечение скота полноценным кормлением [1,2]

Симментальская порода считается одним из широко распространенных пород, разводится в многочисленных странах пяти континентов мира и отличается достаточно высокими показателями молочной и мясной продуктивности, хорошими приспособи-тельными свойствами к различным условиям разведения. В породе различается три производственного типа и разведение скота с учетом этих типов создает предпосылки эффективного использования потенциала породы [3,4].

Материал и методы. Объектом исследований послужили коровы симментальской породы III лактации разного производственного типа. Для исследований по принципу аналогов в племенном стаде фермерского хозяйства «К.Элдор» Пастдаргомского района отобраны три группы коров. В I группу коровқ молочного, во II –молочно-мясного и в III – мясо-молочного типа. Происхождение коров изучено по данным племенного учета, живая масса, продуктивность, типы коров общепринятыми в зоотехнии методами. Коровы всех типов находились в одинаковых условиях содержания, кормили их с учетом молочной продуктивности, живой массы, физиологического состояния.

Результаты. Молочная продуктивность коров разных типов характеризовалась показателями, приведенными в таблице 1.

Таблица 1

Молочная продуктивность коров

подопытных групп

Показатель	Группа					
	I		II		III	
	$\overline{X} \pm S_{\bar{x}}$	Cv,%	$\overline{X} \pm S_{\bar{x}}$	Cv,%	$\overline{X} \pm S_{\bar{x}}$	Cv,%
Удой,кг	4077,0±71,9	5,86	3404,5±66,6	6,40	3118,5±75,9	8,07
Жир в молоке,%	3,98±0,053	4,46	4,17±0,045	3,62	4,26±0,048	3,79
Выход молочного жира,кг	162,2±0,37	5,30	142,0±1,72	4,03	132,8±1,96	4,90
Удой 4%-ного молока, кг	4056,6±35,5	2,91	3549,2±43,1	4,03	3321,2±49,1	4,91
Коэффициент молочности	817,5±9,83	3,98	652,3±8,53	4,34	588,8±10,2	5,77
Живая масса, кг	498,7±7,97	5,30	521,9±6,36	4,04	529,6±7,15	4,48

Как видно из данных таблицы 1, удой за лактацию у коров I группы молочного типа был соответственно на 672,5 кг и 958,5 кг, выход молочного жира на 20,2 и 29,4 кг, удой 4-ного молока на 507,4 и 735,4 кг выше, чем у сверстниц II и III групп при достоверной разнице.

Удой коров I группы был на 377 кг (10,2%), содержание жира в молоке на 0,18%, выход молочного жира на 22,2 кг выше требований действующего стандарта полновозрастных коров симментальской пород

Нами изучен выход молочной продукции на каждые 100 кг живой массы коров (таблица 2).

Таблица 2

Выход молочной продукции на каждые 100 кг живой массы коров

Показатель	Группа		
	I	II	II
Удой, кг	498,7	521,7	529,6
Коэффициент молочности,кг	817,5	652,6	588,8
На 100 кг живой масссы произведено:			
4%-ного молока,кг	813,4	680,3	627,1
молочного жира,кг	32,52	27,22	25,07

Данные таблицы 2 свидетельствуют о том, что коровы молочного типа характеризуются более высоким выходом молочной продукции на 100 кг живой массы. Так, они на 100 кг живой массы произвели молока на 164,9 и 228,7 кг, 4%-ного молока на 133,1 и 186,3 кг, молочного жира на 5,3 и 2,13 кг больше, чем коровы молочно-мясного и мясо-молочного типов соответственно.

Выводы

1.Коровы симментальской породы по уровню молочной продуктивности превосходят коров молочно-мясного и мясо-молочного типов соответственно на 672,5 и 958,5 кг, выходу молочного жира на 20,2 и 29,4 кг при достоверной разнице.

2. У коров молочного типа производство на каждые 100 кг живой массы молочной продукции заметно выше, чем у сверстниц других типов, что свидетельствует о высокой эффективности их использования в молочном стаде для производства молока.

Литература

1. .Катмаков П.С., Анисимова Е.И. Молочная продуктивность и физико-химический состав молока симментальских коров разной селекции.. Вестник Ульяновской ГСХА, 2017., с. 124-127.

2. Панин В,А. Генетический потенциал молочной продуктивности коров симментальской породы и голштин х симментальских помесей. Известия Оренбургского ГАУ, 2017, с.298-301.

3. Дунин И., Кочетков А. Шаркаев В. Племенные и продуктивные качества молочного скота в Российской Федерации.

Ж.“Молочное и мясное скотоводство” , №6, 2010, с.2-4.

4.Аширов М.Э., Соатов У.Р. Продуктивность коров швицкой породы в зависимости от типов телосложения. Ж. «Молочное и мясное скотоводство», 2015.,№6, с.. 21-23.

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

ПРОДУКТИВНЫЕ КАЧЕСТВА КОРОВ СИММЕНТАЛЬСКОЙ ПОРОДЫ РАЗНЫХ ПРОИЗВОДСТВЕННЫХ ТИПОВ В УСЛОВИЯХ УЗБЕКИСТАНА

[1]САТТОРОВ Ф,Р., [2] АШИРОВ М.И.,
[1]Исследователь Самаркандский институт ветеринарной медицины.
[2]Доктор сельскохозяйственнқх наук, профессор, академик РАЕН, Узбекский НИИ животноводства и птицеводства.

Аннотация. Исследования показали, что молочная продуктивность коров симментальской породы зависит от производственных типов. Удой коров молочного типа за III лактацию был соответственно на 672,5 и 958,5 кг, 4%-ного молока на 507,4 и 735,4 кг выше, чем у сверстниц молочно-мясного и мясо-молочного типов. Выявлено, что выход молочной продукции на каждые 100 кг живой массы у коров молочного типа заметно привосходить аналогичные показатели сверсниц иных типов.

Ключевые слова: коровы, симментальская порода, удой, молоко,производственный тип, стада.

Введение Симментальская порода имеет комбинированное направление продуктивности и широко распространена в странах пяти континентов земного шара. Молоко коров этой породы отличается высоким содержанием качественных показателей и является высоко-питательным. Уровень продуктивных показателей коров зависит от генетических и многих внешних факторов, типов телосложения, изучение которых позволяет совершенствовать племенные и продуктивные качества скота данной породы [1, 2, 3].

Материал и методы. Исследования проведены в племенном стаде фермерского хозяйства “К. Элдор” Пастдаргомского района Самаркандской области. **Объектом исследований** были коровы симментальской породы III лактации. Для опыта по принципу аналогов с учетом происхождения, продуктивности родителей, живой массы, производственного типа, физиологического состояния отобраны три группы коров по 12 голов в каждой. В I группу отобраны коровы молочного, во II - молочно-мясного и в III – мясо-молочного типов. Условия кормления и содержания коров всех групп были одинаковыми. Кормили коров с учетом уровня молочной продуктивности, живой массы и физиологического состояния. Продуктивные показатели коров изучены общепринятыми в зоотехнии методами.

Результаты исследований. В таблице 1 показано молочная продуктивность коров подопытных групп.

Таблица 1

Молочная продуктивность коров подопытных групп

Показатель	Группа					
	I		II		III	
	$\overline{X}$ ±S$\bar{x}$	Cv,%	$\overline{X}$ ±S$\bar{x}$	Cv,%	$\overline{X}$ ±S$\bar{x}$	Cv,%
Удой,кг	4077,0±71,9	5,86	3404,5±66,6	6,40	3118,5±75,9	8,07
Жир в молоке,%	3,98±0,053	4,46	4,17±0,045	3,62	4,26±0,048	3,79
Выход молочного жира,кг	162,2±0,37	5,30	142,0±1,72	4,03	132,8±1,96	4,90
Удой 4%-ного молока, кг	4056,6±35,5	2,91	3549,2±43,1	4,03	3321,2±49,1	4,91
Коэффициент молочности	817,5±9,83	3,98	652,3±8,53	4,34	588,8±10,2	5,77
Живая масса, кг	498,7±7,97	5,30	521,9±6,36	4,04	529,6±7,15	4,48

Данные таблицы 1 показывают, что удой за лактацию у коров I группы молочного типа был соответственно на 672,5 кг (P>0?999) и 958,5 кг (P>0,999), выход молочного жира достоверно на 20,2 и 29,4 кг, удой 4-ного молока на 507,4 и 735,4 кг выше, чем у сверстниц II и III групп.

Удой коров I группы был на 377 кг (10,2%), содержание жира в молоке на 0,18%, выход молочного жира на 22,2 кг выше требований действующего стандарта полновозрастных коров симментальской породы.

На рис.1 показано изменение удоев коров подопытных групп, данные которого подтверждают высокий уровень удоя коров молочного типа за лактацию.

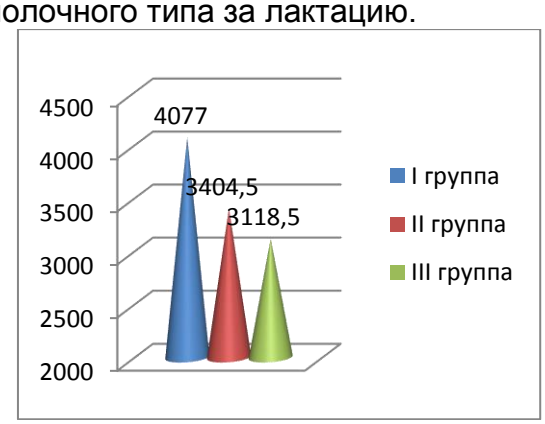


Рис.1. Динамика удоев за лактацию у коров подопытных групп

Мы изучили выход молочной продукции на каждые 100 кг живой массы коров (таблица 2).

Таблица 2. Выход молочной продукции на каждые 100 кг живой массы коров

Показатель	Группа		
	I	II	II
Удой, кг	498,7	521,7	529,6
Коэффициент молочности,кг	817,5	652,6	588,8
На 100 кг живой масссы произведено:			
4%-ного молока,кг	813,4	680,3	627,1
молочного жира,кг	32,52	27,22	25,07

Из данных таблицы 2 видно, что коровы молочного типа отличаются более высоким выходом молочной продукции на 100 кг живой массы. Коровы молочного типа на каждые 100 кг живой массы произвели молока на 164,9 и 228,7 кг, 4%-ного молока на 133,1 и 186,3 кг, молочного жира на 5,3 и 2,13 кг больше, чем коровы молочно-мясного и мясо-молочного типов соответственно.

Выводы

1. Коровы симментальской породы молочного производственного типа по молочной продуктивности заметно превосходили коров молочно-мясного и мясо-молочного типов соответственно на 672,5 и 958,5 кг, выходу молочного жира на 20,2 и 29,4 кг.

2. На каждые 100 кг живой массы коровы молочного типа произвели заметно больше молочной продукции, чем сверстницы других производственных типов, которое свидетельствует о высокой эффективности их использования в молочном стаде.

Список литературы

1. Панин В,А. Генетический потенциал молочной продуктивности коров симментальской породы и голштин х симментальских помесей. Известия Оренбургского ГАУ, 2017, с.298-301.

2. Катмаков П.С., Анисимова Е.И. Молочная продуктивность и физико-химический состав молока симментальских коров разной селекции. Вестник Ульяновской ГСХА, 2017., с. 124-127.

3. Шевхужев А.Ф., Смагулов Д.Р. Молочная продуктивность коров симментальской породы различных внутрипородных типов. Известия Санкт-Петербургского ГАУ, 2015, с. 66-7

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

DIRECTIONS OF INCREASING THE COMPETITIVENESS OF AGRICULTURE

Saidova Dildora Nurmatovna [1], Nizomjon Baxtiyorov Qahramon O'g'li [2].

[1]PhD, Associated Professor of the Department of Agrologistics, Tashkent State Agrarian University, Uzbekistan. Email: dsaidova@rambler.ru
[2]Student of the Faculty of Agrologistics and Business, Tashkent State Agrarian University, Uzbekistan. Email: nizombaxtiyarov@gmail.ru

Abstract. This article explores the theoretical issues of creating clusters, their tasks and capabilities, the impact of clusters on regional competitiveness. Studied the foreign experience in the creation and development of agricultural clusters. The directions of the development of agricultural clusters in Uzbekistan are indicated.

Key words: cluster, cluster model, the competitiveness, agricultural sector.

Introduction

Improving the quality and competitiveness of products through the efficient use of processing capacity in the regions of the country, increasing foreign exchange earnings to the country through their export, creating new jobs and increasing incomes. At the same time, one of the urgent tasks is to move to a system-cluster system, which forms a chain of "production - purchase - storage and processing - export", which has proven itself in the world experience in the agricultural sector of our country.

The need to harmonize the activities of all sectors of the agricultural sector of the country, that is, to solve problems in one direction, first of all, to develop a system of mutually beneficial economic relations between producers and processors on the basis of new modern methods of agribusiness, ie cluster approach occurred. This is because the cluster approach to agro-industrial integration provides for a greater simplification of the organizational and economic relations between the agricultural sectors and the organization on the basis of mutual interest, that is, the interdependence of external and internal relations.

In recent years, as a result of inefficient use of agricultural potential, the quality of agricultural products is not in demand, problems and shortcomings in the legal and economic relations between market entities engaged in their storage, processing and sale have negatively affected their efficiency and competitiveness.

Methods and materials

The concept of "cluster" in relation to industries and companies was introduced into the scientific turnover of the American business economist M. Porter in 1990. M.Porter, in the framework of his theory of national and regional competitiveness and competitive advantages, studied cluster problems. Long before him, the processes of concentration of production and rational distribution were studied in the 1890-1950s by such researchers as A. Marshall, A.Lösch, W.Isard. Works of outstanding economists on studying of the regional development issues and cluster strategies formed a theoretical and methodological basis

of this research. The theoretical base of the cluster concept was put at the beginning of the XIX century in works on economy of agglomeration of Von Thunen (von Thünen, 1966) and his follower, (Weber, 1909). Cluster approach has the basis in works of A. Marshall and J. Schumpeter (Alfred, 1909; Schumpeter & Joseph, 1934; Tolenado, 1978, pp. 149-158; Soulie, 1989; Dahmen, 1950; Feldman & Audretsch, 1999, pp. 409-429; Afanasyev & Myasnikova, 2005, pp. 75-86; Tsikhan, 2003; Winters, 2014; Collart, 2014; Abidin, 2014; Lin, 2013; Cummings & Worley, 2014; Walras, 2013; Mäler & Maler, 2013; Barbier, 2013; Gwartney, 2014 etc.)

The concept of "cluster" can be used as an analysis of the object, as well as in the object of study. The cluster is supported by the object of support in the framework of the strategy of regional development, which is why the clusters increase productivity, innovation, competitiveness, profitability and efficiency in the region of firms.

The research of this problem plays a large role in the oversight of the economic policy of the state, in improving the institutional framework of the agricultural sector, in promoting the development of more effective forms of integration.

Results and Discussion

From a theoretical and practical point of view, one of the main directions of increasing economic efficiency at the level of sectors and enterprises in a market economy is the adherence to the principles of regional development. Such an approach to agricultural development is based on the results of scientific research conducted by many agrarian economists. But the research done does not meet today's requirements mainly due to the fact that it was done during the planned economy period.

The globalization and deepening of integration processes in the world economy requires a comprehensive study of both the internal strengths and weaknesses of agribusiness, as well as its external opportunities and risks in the market. One of these opportunities is to organize an agro-industrial group on a cluster model.

The cluster model (visual cluster - "growth together") is widely used in world practice as a tool to increase the competitiveness of an economic group, region, country as a whole.

The main features of the cluster model are: the ability of the group to increase its share in foreign markets; availability of favorable conditions (raw materials, qualified personnel, infrastructure, training centers, scientific institutions, etc.) in the area; the breadth of opportunities for participants to participate effectively in the group in return for strong use of the group by the state.

The organization of clusters in the processing industry creates a number of competitive advantages in the development of entrepreneurship and increase their competitiveness: firstly, to increase productivity of firms and industry enterprises in the cluster, secondly, increase opportunities for innovative development, thirdly expand new types of entrepreneurship and cluster activities.

The main features of the cluster are reduced to the rule of four "C":

1) the concentration of enterprises of one or related industries in one geographical point;

2) the competitiveness of their products;

3) competition for winning and retaining customers;

4) cooperation with a high degree of development (Tsikhan, 2003).

When forming agro-industrial clusters by territorial specialization, which is most suitable for the agricultural sector, it is proposed to use the following criteria:

1) investment attractiveness of agribusiness in the region;

2) level of sustainability of productivity and productivity in crop production,

livestock and poultry;

3) the level of sustainability of production profitability for the main types of agricultural products;

4) level of sustainability of consumption of the main types of products. (Vartanova M.L.,2017).

Achieving this goal requires the involvement of companies, firms, enterprises and infrastructure entities with a certain performance in the cluster structure. The goal-oriented solution of mutually beneficial economic relations between the market participants of the cluster between producers and processors will be the basis for ensuring high efficiency of cluster activities, otherwise

the ability to achieve the intended purpose of the cluster will be limited.

According to economists, in the current context of accelerated globalization of the economy and the intensification of competition, the regions and territories that form the economy on the basis of a cluster approach are leading the way in economic development. Such a region and prospects determine the level of competitiveness of the state and national economy in which they are located. Regions that do not use the cluster approach to economic development, that is, those that use the traditional approach, are failing to achieve significant results and are becoming secondary areas.

In order to produce high value-added products in Uzbekistan, increase exports, develop decommissioned and dry lands, increase the planting of export-oriented agricultural crops on cotton, cereals, as well as the effective use of orchards, vineyards and greenhouses, various specialized clusters, agriculture special attention was paid to the establishment of associations (cooperatives) and their priority development. In 2019, 77 cotton and textile clusters were launched (in 2018: 16) and 552.5 thousand hectares and 125 thousand hectares allocated to them on the basis of contracts concluded with them and more than 16.0 thousand farms, for a total of 677.5 thousand 2.4 million tons (100.0%) of raw cotton were produced per hectare.

The cluster method, which has been successfully tested in the cotton sector, is being widely introduced in other sectors of agriculture. In 2019, the number of fruit and vegetable clusters was increased to 66 and a total of 18.9 thousand hectares of land were allocated to them.

Initiators have also been identified for the establishment of clusters in grain (145), rice (33) and seed, and organizational measures are being taken to establish their activities.

In order to produce high-quality and export-oriented products, to process them and direct them to the markets of developed countries, serious attention is paid to expanding the geography of exports. At the same time, a total of 2 million 107.6 thousand tons of products were processed by 597 processing enterprises on 133 projects with a capacity of 258 thousand tons.

In 2019, a total of 1.4 million tons (113% more than in 2018) of products worth $ 1 billion 250.4 million (140%) (including vegetables: 589.4 thousand tons, 134% (worth $ 266.6 million) ; fruit: 296.1 thousand tons, 119% ($ 308.0 million); melons: 38.7 thousand tons, 116% ($ 15.5 million); grapes: 187.8 thousand tons, 91% (221 , $ 1 million); legumes and oilseeds: 170.8 thousand tons, 84% ($ 186.8 million); dried fruits and vegetables: 121.3 thousand tons, 104% ($ 205.9 million) and seedlings: 3.1 thousand tons ($ 46.6 million) were exported to the markets of Slovakia, Brazil, Algeria, Israel, Hungary, Hong Kong, Kuwait, Greece, Mongolia, Morocco, Australia, Bosnia and Herzegovina, France, Canada and Qatar.

Conclusion

The main directions of promoting the effective functioning of agro-clusters in Uzbekistan are:

- In order to form the innovative activity of enterprises according to the cluster model and adapt and adapt to new conditions, it is necessary to develop group relations based on modern corporate governance mechanisms within the cluster, taking into account the interests of participants, improving internal and external regulations;

- It is necessary to develop mechanisms for local authorities to have the necessary beneficial impact on the innovative activities of enterprises participating in the cluster and to identify ways to implement them in the context of the region;

- In order to provide the participants of the agro-cluster with the necessary information, it is necessary to create a single digital and identifiable database on effective corporate governance, first of all, to establish mutually beneficial business relations between the cluster and the participant-firm within this group.

- The concept of general quality management provides a reliable analysis of the current state of its resources and infrastructure, forecasting tools for the near and long term to develop a logistics strategy for each cluster in accordance with the requirements of Total Quality Management (TQM ISO-9000/2010) and the rules of modern integrated logistics system creation required;

- For the effective functioning of agro-clusters it is necessary to take measures to organize and improve the system of continuous training, retraining and advanced training of specialists;

-It has not been long since many clusters were established and started operating in Uzbekistan. In this regard, the results of their activities have not yet been fully formed, and we

consider it expedient to develop a system of indicators for evaluating the effectiveness of clusters.

Acknowledgement

The organization of agroclusters and the development of their activities lead to the following advantages:

- agroclusters not only provide access to foreign trade through the export of finished products, but also provide comprehensive assistance in the production of high-quality and high-quality products for imports, replacing imports using modern agricultural technologies for the domestic market;

- a relatively inexpensive and reliable raw material base will be created for many firms that are agrocluster enterprises and other group participants. The agrocluster, together with the suppliers of raw materials and products in all groups, prepares the desired product with the required quality and standards in accordance with the same technological regime (normative certificate and standard requirements, time schedules, etc. production discipline rules) in an integrated agrologistic system. will be able to deliver to markets;

- Creates a comprehensive database on access to foreign markets, along with the formation of agro-industrial associations, information and communication systems, modern warehouses and transport terminals and other infrastructure facilities, logistics centers, providing employment and allows you to choose the most effective marketing channel;

- on the basis of regulation of investment flows and priority development of all logistics links of the cluster (including infrastructure facilities), it will be possible to assess the effective use of natural resources (land, water, gas, etc.) and newly created technological and innovative potential;

- - on the basis of regulation of investment flows and priority development of all logistics links of the cluster (including infrastructure facilities), it will be possible to assess the effective use of natural resources (land, water, gas, etc.) and newly created technological and innovative potential;

- Opportunity to provide targeted benefits to a group of enterprises that are important in the regional economy;

- The ability to quickly disseminate innovation news to all enterprises of the agro-cluster is also important for the development of innovative potential of the regions. The cluster development model allows the country, the region, and the group in particular, to raise their competitiveness indices. As a result, the possibility of attracting foreign investment to the region will increase;

- The ability to quickly disseminate innovation news to all enterprises of the agro-cluster is also important for the development of innovative potential of the regions. The cluster development model allows the country, the region, and the group in particular, to raise their competitiveness indices. As a result, the possibility of attracting foreign investment to the region will increase.

References

1.Abidin, Z. Z., Kamal, N. M., & Jusoff, K. (2014). Board structure and corporate performance in Malaysia. International Journal of Economics and Finance, 1(1), 150.

2.Afanasyev, M., & Myasnikova, L. (2005). World competition and economy clustering. Economy questions, 4, 75-86.

3.Baptista, R. (1998) Clusters, Innovation and Growth, in Swann, P., Prevezer, M. and Stout, D. (Eds) The Dynamics of Industrial Clustering: International Comparisons in Computing and Biotechnology, Oxford University Press, Oxford.

4.Bergman, E. and Feser, E. (1999) Industrial and Regional Clusters: Concepts and Comparative Applications, Regional Research Institute, West Virginia University.

5.Dahmen, E. (1950). Entrepreneurial Activity and the Development of Swedish Industry, 1919-1939. Stockholm. Feldman, V. P., & Audretsch, D. B. (1999).

6.Isard W. (1975) Introduction to Regional Science.

7.Isard W. (1960) Methods of Regional Analysis: an Introduction to Regional Science. Изард У. Методы регионального анализа : введение в науку о регионах =: 1960 / Пер. с англ. В. М. Гохмана, Ю. Г. Липеца, С. Н. Тагера. — М. : Прогресс, 1966. — 660 с.

8.Lin, C., Ma, Y., Malatesta, P., & Xuan, Y. (2013). Corporate ownership structure and the choice between bank debt and public debt. Journal of Financial Economics, 109(2), 517-534. http://dx.doi.org/10.1016/j.jfineco. 2013.03.006

9.Mäler, K. G., & Maler, F. D. K. G. (2013). Environmental economics: A theoretical inquiry. Routledge.

10.Migranyan, A. A. (2007). Problems and prospects of development of competitive clusters in the Kyrgyz republic. Problems of the modern economy, 1(21).

11.Mirolyubov, T. V. (2010). Conceptual approaches to development of foreign economic activity of the region. Vestnik Permskogo Universiteta. Economy, 3, 36-48.

Translation from English. Moscow: Williams publishing house.

17.Rosenfeld, (1995) Bringing Business Clusters into the Mainstream of Economic Development, European Planning Studies, Vol.5, pp.3-23.

18.Rouvinen, P. and Ylä-Antitila, P. (1999) Finnish Cluster Studies and New Industrial Policy Making, in in Roelandt, T. and den Hertog, P (eds), Boosting Innovation: The Cluster Approach, OECD, Paris.

19.Saidova D.N., Dehkanova Sh.S. (2019) Improving the competitiveness of the agricultural sector as a factor of food security in the region .South Asian Journal of Marketing & Management. Volume-9, Issue-8 (August). P.47-54. www.indianjournals.com. ISSN : 2249-877X. DOI:10.5958/2249-877X.2019.00034.1

12.Neustroyeva, N. A. (2013). Theoretical approaches and principles of formation of cluster structures. Russian business, 10(232), 114-125.

13.Nikolaev, M. V., & Egorova, I. E. (2006). About a problem of formation of clusters in the Russian economy (on the example of a diamond complex of Yakutia). Problems of the modern economy, 3/4(19/20).

14.Porter, M. (1990) The Competitive Advantage of Nations, Free Press, New York.

15.Porter, M. (1998) Clusters and the New Economics of Competition, Harvard Business Review, November-December, pp.77-90

16.Porter, M. (2005). Competition

20.Schumpeter, J. A. (1934). The Theory of Economic Development. New York: Oxford University.

21.Swann, P. (1998) Clusters in the US Computing Industry, in Swann, P., Prevezer, M. and Stout, D. (eds) The Dynamics of Industrial Clustering: International Comparisons in Computing and Biotechnology, Oxford University Press, Oxford.

22.Tsikhan, T. V. (2003). Cluster theory of economic development. Theory and practice of management (p. 65).

23.Von Thünen, J. H. (1966). Isolated state: An English edition of Der isolierte Staat. Pergamon.

24.Walras, L. (2013). Elements of pure economics. Routledge.

25.Weber, A. (1909). Über den standort der industrien. JCB Mohr.

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

AMIR TEMUR'S PERSONALITY, ARMY FORMATION, MILITARY SKILLS

Mukhtarov Sardorbek Saydullo ugli[1]., Gulomov Yahyobek Shamsiddin ugli[2]., Baratov Muslimbek Alisher ugli[3].

[1]3rd year student of the Faculty of History of Andijan State University.
[2]Andijan State University, Faculty of History, 2nd year student.
[3]3rd year student of Andijan State University, Faculty of Socio-Economics.

Abstract. This article is about the great master Amir Temur Koragon, whose life, his heroic deeds on the battlefield, his childhood interest in science and hunting, and the fact that he was awarded the title of Alexander the Great. Consequently, the martial arts of Amir Temur and Genghis Khan are still epic in the languages of world historians. Amir Temur's intelligence led him to build a great empire, a centralized state. During the reign of Amir Temur, architecture, creativity and urban planning flourished. Amir Temur wrote the glorious period of his life for generations on the basis of historical works. Timur's Statutes are an important tactical resource in the field of statehood and governance.

Key words. : master, diplomacy, strategy, nose, juvangor, tuzuk, zafarnoma, mongol, ayans, nation, army, military skill.

Introduction

Amir Temur was born on April 9, 1336 in Kesh (now Shahrisabz). His full name was Amir Taragay ibn Amir Barqul ibn Ilongiz ibn Injil ibn Qarajor Noyan ibn Amir Suguchin ibn Irimchi Zaloshkhan ibn Qajuvli ibn Tarbonkhan. [1] He was guided by his father's youthful mentor, Sheikh Shamsiddin Kulol. Amir Temur mentions another teacher in his "Temur's rules. This is Zayniddin Abu Bakr Toyabadi. Zayniddin Abu Bakr Toyabadi is a famous sheikh from the village of Toyabad in Herat. According to the historian Fasih Hawafi's Mujmali Fasihi, he first met Amir Temur in 1381 in the Harirud Valley. Toyabadi died on January 28, 1389. [2] The first President Islam Karimov in his book "High spirituality is an invincible force" speaks about the image of Amir Temur. Amir Temur, a symbol of unparalleled determination, courage and wisdom, built a great empire and left a practical and theoretical legacy in the field of statehood, the development of science, culture, creativity, religion and spirituality. paved the way. [3] We know that the whole world calls Amir Temur a master. In fact, not everyone knows who gave the name. This name was given to Amir Temur by Sayfiddin Sheikh ul-Alam. The nickname Sahibkiran was given because the stars were born when they were close together. These stars are the stars of Saturn and Client. The stars of Saturn and Client come close once every eight hundred years. If someone is born at this time, his fortune will be high for the rest of his life. The three were born at the same time. The first is Iskandar Dhu'l-Qarnayn, the second is the Messenger of Allah Muhammad (peace and blessings of Allaah be upon him), and the third is Amir Temur. Amir Temur began to boil in the cauldron of life very early. However, due to the weak faith of Amir Taragay, the young Amir Temur grew up in the political arena as a strong-willed, strong-willed young man. The pain of defeat and the pressure did not stop him. On the

contrary, he urged his father not to submit to the opposition.

Main part. It is known that Amir Temur, in order to seize power in Movarounnahr and establish peace and tranquility in these areas, made several military campaigns in different provinces and put an end to the arbitrariness of several governors who refused to submit to him. If we look at the information in the first book of "History of Rashidi", we can see that the Fergana Valley, in particular, the Andijan region, has a special strategic position in the work of Amir Temur to unite the territories of Movarounnahr. It should be noted that the translators of Sharafiddin Ali Yazdi's "Zafarnoma" in their comments noted that Sahibqqiran Amir Temur crossed the Fergana Valley from east to west for the first time in the spring and summer of 1375. [4]

Amir Temur gained a very high level of experience in the military field. He focused on the structure of the army. So far, the world has been amazed by Amir Temur's military tactics. Amir Temur's troops consisted of infantry and cavalry. But pedestrians were also provided with horses for long desert trips. The cavalry was also trained to fight on foot. [5] They would dismount and become infantry only when they had to shoot with a bow. Amir Temur also had his own navkars. Originally, Amir Temur's army was a regular army of more settled peoples. This is one of the differences between Genghis Khan's army and Timur's army. Amir Temur's army, like Genghis Khan's army, was divided into tens, hundreds, thousands, districts, and so on, led by tens, hundreds, thousands, and emirs. A total of 18 soldiers had to take part in the battle. Amir Temur was very careful to check the condition of the army, how it was equipped, in general, before the march or before the battle. Amir Temur did not like corporal punishment of soldiers. A soldier who committed a crime was deprived of one-tenth of his salary.

Amir Temur had a pure Mongol image on his face, as he was slightly mixed with elements of the Turkish race and Iran. He described the Turkish master's beard as long, his cheeks as red, and his body as white. Therefore, only Timur's dress is reminiscent of Iranian or West Asian elements. We see Timur wearing loose garments made of precious silk during the clashes. These garments were not approved in Muslim Asia at that time. An elongated sapphire was attached to the tip of the helmet, and its perimeter was adorned with pearls and unique jewels. His great and valuable custom of wearing a sage was peculiar to the Mongols. He was generally complimented by outward adornments and open arrogance. He endured many losses and hardships in his long life of mastery and was always faithful to his simplicity like the Spartans.

That is the great edge in its natural qualities. In his youth, he looked at life from the perspective of Islam and mysticism, influenced by the interpretations of his father and the clerical imams. His resolute fighting spirit and boundless intelligence were always in an inner struggle with these qualities. The latter qualities must have prevailed in him, as he himself says, "Power can be held in the hand by the sword." When he allowed his soldier to plunder Isfahan, he ordered the clergy to show mercy; He had religious discussions with the scholars of Herat and Aleppo. He gave royal gifts to those who did not think like him (that is, think differently). It is known that Timur had a very sharp discussion with the scholar Sharafiddin Halabi. He then took him under his protection and ordered him and his disciples to give him valuable gifts. Their number was close to 2,000. He sought to attract the scholar Shamsiddin Qazi, Jaziri, and the famous Sheikh Bukhari to his side with clothes and gifts. However, these were captured in the palace of his enemy. They were open enemies of Timur. Whichever country he occupied, his unique o. He was one of the artists and masters of this country. He loaded the books in the Bursa library onto the animals and moved them to Samarkand. Now, can this man be called a savage, a ruthless man? the thoughts of those who call him a tyrant, a bandit, are far from the truth. He was first and foremost an Asian general. He used his victorious soldiers and weapons in the manner of his time. His activities, especially his deeds and wars, which were considered sinful by his enemies, always occurred as a punishment for a crime.

According to Sharafiddin Ali Yazdi, Amir Temur paid special attention to the uniform of the army. For example, the helmet, the bullet, and the Kamari gourd were all red. The idea is to separate military units. [6] Amir Temur used to

go when the enemy army numbered more than 40,000. Amir Temur was a special patron of travelers, merchants and caravan leaders, from whom he learned important information about the situation in the countries he visited. According to Amir Temur, it is wrong to act with weapons where politics can achieve the goal. Amir Temur did not spare his wealth to motivate his servants and invited them to eat with him. Amir Temur will choose his assistants from among the wise men, will appoint honest people to rule the provinces, and they, in turn, will report to him on the character of the people and the army, in general, on everything remarkable. they lived. Amir Temur demanded that the rulers refrain from oppression and extortion, knowing that the abuse of his position would lead to famine and various calamities, forcing his people to flee to other lands. Amir Temur patronized science, enjoyed conversations with scholars about the history of nations and the biographies of rulers, imitated the positive deeds of great people of the past, and diligently studied their failures in order not to repeat mistakes. Around Amir Temur's throne, his sons, grandsons, and other relatives were crescent-shaped, depending on the level and importance of kinship. The descendants of the prophets, judges, scholars, priests, elders, nobles and nobles sat on the left, facing the ranks of army commanders and emirs. In the first period of his activity, Timur focused all his efforts on creating a united, centralized independent state instead of the depressed and ruined Chigatay nation in Movarounnahr. When Amir Temur took power in Movarounnahr, one of his first activities was to hold regular congresses. In the above-mentioned work, Sharafiddin Ali Yazdi gives information about the congresses held by Timur in Karshi, Karabakh, Samarkand and other places, which were attended by all princes, administrative leaders and military leaders. [7] Amir Temur completely changed Samarkand. He built gardens and palaces here, such as Koksaroy, Bibihanim mosque, Shahizinda district, Garden Dilkusho, Garden of Wind, Garden of Paradise around Samarkand. Amir Temur was a very intelligent person. He could also recruit enemies. In the battle of Tokhtamysh, his secretary, the commander-in-chief of Ilyaskhoja Oglan, Bekchik's son, was in his service. Undoubtedly, many people from this horde were in his service, informing him about the situation in their homeland, and thus benefited him greatly. [8] For disobedience, cowardice, and violation of military discipline, Ami Temur also obeyed the laws of Genghis Khan's Yasak, beating such soldiers with a stick on his back and abdomen, as well as putting cowards on women and putting red paint on their faces, and then tied to a donkey's tail and roamed the streets of the city. [9] Amir Temur's constant rule, that is, to approach the enemy and surround the camp with a ditch, clearly shows that his camp was located correctly. Otherwise, the camp would occupy a very large area, and digging a trench would take a long time. According to Amir Temur's instructions, in peacetime, 12,000 soldiers were deployed around his palace as personal bodyguards. Only a thousand of them were assigned to work non-stop at night. If we accept this ratio for the above-mentioned military regime, then the number of Amir Temur's troops could reach 360 thousand.

References:

1.S. Tashkent. Temurnoma T .: Cholpon 1990. 35 p.

2.B.Ahmedov. “Temur tuzuklari” T .: Gafur Gulom Publishing and Printing Association 1991

3.I.A.Karimov. "High spirituality is an invincible force" T .: "Spirituality" 2008. 28 p

4.R.Shamsutdinov, AA Ishakov “Pictures from the history of Andijan” T .: “Sharq” 2013 36 p.

5.Mikhail Ivanin. “Two great commanders” T .: “New century generation” 2018 179 p.

6.Mikhail Ivanin. “Two great commanders” T .: “New century generation” 2018 186 p.

7.I.Mominov. "The place and role of Amir Temur in the history of Central Asia". T .: “Fan” 1993 20 p.

8.Mikhail Ivanin. “Two great commanders” T .: “New century generation” 2018 288 p.

9.Mikhail Ivanin. “Two great commanders” T .: “New century generation” 2018 290 p.

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

ИННОВАЦИОННЫЕ ТЕХНОЛОГИИ В ОБРАЗОВАТЕЛЬНОМ ПРОЦЕССЕ

Сейтназаров Куанишбай Кенесбаевич[1].
Кенесбаева Перийзат Исмайловна[2]

[1]Декан факультета Компьютерный инжиниринг Нукусского филиала Ташкентского университета информационных технологий имени Мухаммада аль-Хорезми, доктор технических наук, Нукус, Узбекистан

[2]студент по направлению «Телекоммуникационные технологии» Нукусского филиала Ташкентского университета информационных технологий имени Мухаммеда аль- Хорезмий, Республика Узбекистан, г. Нукус

Анотатция. В этой статье рассматривается роль современные инновационные технологий в образований и аспекты традиционного обучения. Задачи современного педагога для разработки мощной системы обучения. Важность системы обучения в развитие страны.

Ключевые слова. глобализация, методы «человек-машина», информационная атака, метод «учитель-ученик-компьютер», метод «Оценка», интеллектуальный потенциал человека .

Введение

Из исторического развития человечества известно, что по мере развития жизни общества наравне с другими сферами, сфера образования, ее системы, процесс и методы образования также улучшаются. В каждой стране развитие, его место в мировом сообществе, положение населения данного региона определяются интеллектуальным потенциалом. Следовательно, физически и духовно здоровое, гармонично развитое поколение в нашей стране- актуальная задача воспитания, подготовки современных зрелых квалифицированных кадров, и в этом направлении проводятся большие практические работы, в частности, в нынешнем историческом процессе глобализация общества. Социально-экономические реформы, внедрение различных новшеств в нашу жизнь, приход необходимости их понимания и анализа в системе образования требует изменений на основе новых технологий. В следствии в этой области используются средства информации и коммуникации, методы «человек-машина» или «учитель-ученик-компьютер», широко используется метод коммуникативного обучения. Цель всего этого - обширные и солидные знания, навыки, компетенции, любознательность, инициативность, стремление к четкой цели в решении задач, самостоятельность и требовательность к личной жизни, самостоятельное мышление, творчество - это формирование навыков. Опять же, этот метод применим к системе образования. Ускорить все этапы учебного процесса, повысить качества и эффективность, адаптацию молодежи к условиям информированного общества проживание и подготовка к работе.

Главная часть. Использование компьютеров в процессе обучения

Corresponding author:squanishbay@umail.uz

позволяет:

-формировать потребность студентов знать;

-активизировать познавательную деятельность студентов;

-повысить интерес студентов к изучению науки;

-повысить уровень индивидуальности ученика в обучении;

-развить творческие способности студентов;

-обеспечить разнообразие контента;

- расширить номенклатуру учебных материалов, используемых в образовании.

Именно педагог отвечает за формирование этих аспектов у учащихся. Педагоги ищут, получают и собирают информацию, относящуюся к их области. Педагоги помогают приобрести навыки хранения, обработки и целевого использования, уметь принимать осознанные независимые решения в своей профессиональной деятельности, быть конкурентоспособными, профессионально подготовленными, получить современные знания и овладеть ими. Его творчество и работа основывается на научном и жизненных опытах.

Кроме того, учителя и воспитатели имеют навыки и компетенции, которые приобрели профессиональные и этические характеристики, высокие педагогические навыки с умением применять в нестандартных ситуациях, практические навыки, связанные с демонстрацией, дизайном и планированием.

Компьютер - это не только современный метод обучения преподавателей, но и возможность для дальнейшего повышения и улучшения своих профессиональных навыков. В частности, компьютерные технологии предоставляют образовательную информацию для преподавателей, позволяют на практике расширить проекты трансмиссии, например, они дают возможность из цветов использовать графику, наглядно визуализировать состояние анимаций. Обучение учителя работе на компьютере расширяет процесс. Обучение не ограничивается только использованием компьютеров, но и создает возможность изменения уровня задания в разных вариантах преподавателей для студентов (1,270-с).

Вот почему развитие образования сегодня становится все более глобальным. Обучение специалистов, являющихся знатоками своего дела в ближайший период означает, что эта проблема становится все более актуальной. Это хорошо известно из опыта преподавания в любых сферах педагогов, которые являются экспертами в области научного потенциала или достигнутых достижений. Таким образом, без педагога в процессе обучения, несмотря на использование любых информационных технологий, достижение желаемого результата - очень сложный процесс.

Создание современных образовательных технологий в этой сфере, использование интернета с конца двадцатого века - начало процесса компьютеризации. Широкое использование сети в жизни общества удобно и в сфере образования, наряду с возможностями, это также приносит негативные ситуации, которые сегодня ставит перед современными педагогами новые задачи. Информированное общество, его особенности породили новые представления об информационных атаках.

Суть понятий - это читатель, учитель, родитель, нам всем нужно иметь правильное понимание, культуру анализа, мировоззрение. В информированном обществе информационные атаки захватывают сердце и разум человека, направлены на разрушение.

Первый Президент Республики Узбекистан И.Каримов сказал: «... воспитательное сознание - духовность народа, определяющая как уровень, так и его развитие. Это самый важный фактор, который формирует и обогащает». (2, 61-с).

Итак, какие бы положительные методы в образовательном процессе современного общества, передовые средства научно-технических достижений не использовались, мы не должны забывать, что они оказывают положительное или отрицательное влияние не только на интеллектуальный потенциал человека , но и на духовное воспитание.

Потенциал общества на основе национальной программы подготовки кадров

Узбекистана реализует свой потенциал, сильный интеллектуальный и духовный потенциал и формируется поэтапно. Концепция формирование гражданского общества напрямую влияет на систему образования, разработку, созданию новых технологий и применению в педагогической практике и все они неразрывно связаны.

Состояние образования студентов, обучающихся в высших учебных заведениях блок передового педагогического опыта в науке, практике и образование на основе образовательных стандартов требует необходимость для обеспечения его эффективности во взаимозависимости, включение критериев, правил, степеней и показателей качества обучения, чтобы стать квалифицированным специалистом. Образование, полученное студентами, уровень подготовки по специальности должны соответствовать требованиям времени, рыночной экономики. А это в свою очередь, обучает учителей творческим исследованиям, поиску прогрессивных способов обучения на основе достижений науки, требует эффективного использования нетрадиционных методов. Концепция педагогической технологии существует со второй половины двадцатого века, и хотя эта концепция активно применяется в теории и практике педагогики, в нашей стране этот процесс начался только в годы независимости. Сейчас в всех учебных заведениях на лекциях, семинарах и практических занятиях используется она используется как образовательные технологии, а не как новые педагогические технологии.

Можно привести множество примеров этого. Цель современных педагогических технологии:

- активизировать учебный процесс, учебный материал аудиторий, достичь высокого уровня мастерства и дать возможность аудитории мыслить независимо и научить их выражать свое мнение. Обучающие педагогические технологии способствуют эффективной реализации процесса, управлению, целевому назначению, создают возможность достижения результатов. Однако игнорирование как методических, так и дидактических результатов исследований лишает технологизацию образования серьезной теоретической основы. Это, как отмечается в работах большинства авторов, - проблема технологизации, которая приводит к ограничению круга конкретных вопросов (3, с. 73).

Но пока каждый учитель хочет достичь своей образовательной цели, целесообразнее примененить метод «Оценка» во время организационной, основной или завершающей части урока. «Оценка» - это центр, технология самооценки личности. «Оценка» - от английского assessment означает «оценивание». Цель использования этого метода - повышение знаний студентов, анализа, тестирования и самооценки с помощью нескольких различных подходов. Эта технология используется для закрепления в конце каждого сеанса. Метод подхода состоит из четырех шагов, а задачи выполняются последовательно. Теоретические знания студентов на первом и втором этапе, полученные в сети, оцениваются с помощью теста, и на третьем этапе ученику дается проблемная ситуация, и ученик принимает решение. На четвертом этапе оцениваются практические навыки студента. После выполнения заданий студентам дается продемонстрировать учащимся вариант ответа, а в конечном итоге студенты учатся самооценке. Эта технология посредством которого учитель тщательно оценивает знания, навыки и способности ученика. В результате студент достигает полного усвоения темы. Из приведенных выше идей первоначально педагогическая технология выполняет следующие функции:

- Проект педагогических технологический разрабатывается одним человеком или творческой группой и будет доступен всем учителям;

-Студент - учится читать самостоятельно, ученик самокорректируется, учится оценивать;

-Студент обучается умению самостоятельно получать знания из источников, думать, стоять в самостоятельной позе;

-Все студенты достигают совмещения

практических и теоретических знаний, навыков и компетенций, основанные на полученных ими знаниях, в свою очередь, способность ученика к овладению знаниями расширяется. (4,106-р)

Итак, анализ преимущества и недостатков традиционных методов обучения, применение современного и эффективно использующегося богатого педагогического опыта и новых идей, пригодные для обучения республики на базе педагогических технологий повышают эффективность создания и использования педагогических технологий, где педагоги должны быть очень внимательными, умными, умелыми в воспитании.

Ссылки.

1. Хакимов Т.М. Хакимова Ю.Т. Эффективно от компьютера в процессе обучения влияние использования на профессиональную компетентность.
2. Система непрерывного образования информационные свойства. Деятельность в системе среднего специального и высшего образования
3. Повышение профессиональной компетентности педагогических кадров.
4. Материалы Республиканско-практической конференции. Бухара, 2015, с.246.
5. Каримов И.А. Высокая духовность - непобедимая сила. Т; Духовность, 2016, с.61.
6. Ишмухамедов Р.Ж. «Инновационные технологии в образовании» 2014, с.73.
7. Камолдинов М., Ваксобжонов Б. Основы инновационной педагогической технологии, Т., 2010, с.105.

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

ROSA AND INTEGRATED PEST CONTROL MEASURES

B.K.Mukhammadiev[1] N.A.Khasilava[2].
[1]TSAU, Ph.D., Associate Professor. [2]TSAU 1st year student.

Abstract. This article provides information on the value of the medicinal Rosa plant in the national economy and pharmaceuticals, its botanical definition and its main harmful organisms and measures to combat them. It is noted that mainly in the wild rose contains the main harmful organisms, such as Rhagoletis alternata, Celypha rosaceana, Macrosiphum rosae L., Arge ochropus, Tetranychus urticae

Key words. sawfly, pink, pharmaceuticals, medicinal, chemical, fruit, flower, bud, acaricide, pyrethroid, organophosphorus.

Introduction

On global scale, special attention is paid to the protection of territories where medicinal plants grow. There are 10-12 thousand species of medicinal plants in the world, chemical-pharmacological and medicinal properties of more than 100 plant species have been studied. There are 577 species of medicinal plants in Uzbekistan.

Currently, the area of rosa plantations and the amount of raw materials extracted from them are increasing in the world. However, due to the fact that rosa is affected by various pests and diseases at different stages of development, not only its large yield is lost, but also the quality and quantity of medicinal substances in it is sharply reduced.

General Description of rosa: Rosa is a shrub that includes more than 3000 species belonging to about 100 genera, including grasses, shrubs, shrubs and trees.

The leaves of some representatives are often alternate, with lateral leaves, which sometimes fall off early, and sometimes persist for a long time, because the base is attached to the leaf.

Flowers are sometimes solitary, sometimes in inflorescences, actinomorphic (sometimes zygomorphic), less often 5-membered, 4-6-membered. The place of the flower is convex, flat, concave or cupped.The calyx consists of loose calyx leaves, the calyx leaves appear to be fused if they protrude from the expanded base of the flower disc.

METHODS: Entomological calculations and observations were carried out by the method of V. Yakhontov, G. Ya. Bei-Bienko, N.V. Boidarenko, A.A. Captures, S.A. Murodov; The density of pests was determined by the method of Sh.T. Khodzhaeva; The dominance of entomophages was based on the methods of K.K. Fasulati, S.N. Alimukhamedov.

The degree of harmfulness of the phytophage was determined by the method of V.I. Tansky

RESULTS: Rhagoletis alternata Fall:

This pest belongs to the Tephritidae family and is the main pest of rosa. Distributed in the CIS countries. The length of the female is 3.8-5.4 mm, the length of the male is 2.9-4 mm. The head and body are yellowish brown; larvae 7–8 mm, straw-colored. It hibernates under the bark in the form of a false pupa or between bushes to a depth of 5 cm.

Fig.1.Rhagoletis alternata Fall

Chemical control of flies is effective, therefore, it is advisable to use the recommended organophosphorus preparations against this pest.

The wingspan is 15-22 mm, the front wings are light yellow to dark brown. They wrap their leaves and live inside.

Fig.2. Celypha rosaceana.

As precaution against the leaf roll, he cuts off damaged twigs, collects leaves wrapped in a tube sprayed with the “Prophylactin” preparation (10 l of water/0.5 l) at an air temperature above +50C. The tree consumes 2–5 liters of fluid.

Before flowering rosa, the following preparations Atom, Ditox, Di-68, Binom, Bi-58 Novy, Rogor-S, Terradim, Desant, Tagor, Tod, Zolon, Fufanon are sprayed from 10 ml per 10 l of water. Good results are also obtained by Avant, Lannat 20 L, Aktellik, Kalipso, Sumition, Samurai Super, Sumidju, Koragen.

If the spraying is delayed and the larvae are hiding in the leaves or buds, spray the following pyrethroids Ivengo, Alt Alpha, Accord, Alfacin, Alfashans, Tsi-Alpha, Fatrin, Fastak from 3 ml per 10 liters of water. In such cases, it is necessary to use the bactericidal preparations Lepidocid, Bitoxibacillin , Fitoverm and Akarin.

It is not recommended to use highly toxic drugs after flowering rosa or in summer. Insegar is also effective, controlling the development and growth of insects when butterflies begin to fly.

Macrosiphum rosae L.

There are more than 4,700 species of aphids in the world, the most common of which is Macrosiphum rosae L., which cause serious damage to fruit and ornamental trees.

Fig.3. Macrosiphum rosae L

Against aphids, you can spray a solution of laundry soap 2-3 times, if aphids are sprayed too much with Actellik or Aktara preparations.

Arge ochropus.

Arge ochropus can live on all fruit and ornamental trees. It is mainly known for damaging flower stalks. The larvae cause serious harm. Size 7-10 mm, glossy. The dome is 10 mm long and 5 mm wide. One female lays up to 70 eggs. A rose bush is an insect that infects rosa and roses equally and thoroughly.

Fig.4. Arge ochropus.

The drugs Karbofos, Benzophosphate, Metaphos, Chlorofos, Arrivo, Mospilan, Virin-Diprion from viral drugs, Aktara from neonicotinoids, Karate from pyrethroids, Kinmix have a good effect against the sawfly.

There is also method of spraying the plant by soaking 1 kg of the anti-Arge ochropus aconite plant in 30 ml of water for two days with the addition of 30 ml of alkali and 50 g of laundry soap.

Tetranychus urticae.

Among other plants, especially rosa, Tetranychus urticae cause serious damage. Tetranychus urticae is unisexual, oval body, male 0.2-0.3 mm, female 0.4-0.6 mm. On the outer side of the back there are 26 fine hairs arranged in seven transverse lines..

Fig.5. Tetranychus urticae.

One of the main reasons for Tetranychus urticae to breed is dry weather, so spraying trees with water also prevents it from spreading to the tree. If Tetranychus urticae has crossed a tree, then other control methods are used.Dissolving 4-5 grams of washing powder in 1 liter of water and spraying will also prevent Tetranychus urticae from breeding.

From acaricides Sunmayt, Demitan, Omayt, Flumayt, Floromite, Nissoran, Bicol, Bitoksibacillin, Envidor, Apollo, Borneo or insectoacaricides Akarin, Agravertin, Vertimek, Dursban, Karate, Kleschevit, Fitovertofit, Akarin, Talafitovit.

References:

1. Abdullaeva G.D., Mirzaitova M.K., Siddikova N.K. Pests of rosa. Bulletin of Science and Education. №24-3 (78) .2019. page 6-9

2. Udalova EG Diseases and pests of garden plants. St. Petersburg: Publishing House "Neva". 2006.S. 160

3. Source: https://floristics.info/ru/stati/vrediteli/3792-pililshchik-mery-borby-sredstva-i-preparaty.html

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

Preventing the formation of suicidal risk in adolescents under the influence of interpersonal relationships

Axmadov Nazirjon Rahmat o'g'li [1] Dehqonboyev Shohjahon Oybek o'g'li[2].

[1]Second year Master's degree student of Psychology department at Bukhara State University
[2]Second year Bachelor's degree student of Psychology department at Bukhara State University

Abstract. This article discusses the position of adolescents in interpersonal relationships, as well as the various psychological and physiological conditions that occur in them, the detection and prevention of deviant behaviors in adolescents, especially suicides.

Key words: social group, deviant behavior, adolescence, "Ideal Self", "Moral Self" and "True Self", emotional stress, alcoholism, affective and pathocaracterological reactions, neuropsychological and psychosomatic disorders, depression, psychogenic causes

Introduction

Parts of any social system are people. People's entry into society is done through various units. Every individual is embodied in social groups, social institutions, social organizations through the system of rules and values accepted in society, that is, culture. Accordingly, man is involved in many social systems, each of which has a formative effect on him. Thus, man is not only a part of the social system, but also a part of the complex structural system. . The interpersonal relationship of a person means, first of all, that it is one of the elements of this system of relations. Interpersonal relationships serve as the basis for the development of the individual, his formation as a perfect human being, so interpersonal relationships have a special place in the formation and development of such qualities as humanity, purity, honesty, sincerity.

Main part.

Adolescence is a time when personality traits such as worldview, beliefs, principles, self-awareness, and self-esteem are formed. As a adolescent grows up, he develops personality systems, worldviews, beliefs, such as "Ideal Self", "Moral Self" and "True Self", in which his ideas about himself are more clear and remains stable. Adolescents begin to organize their activities on the basis of certain principles, beliefs and personal views. The structure of adolescent's personality should take into account his or her attitude to the environment, social events and people. Research by psychologists shows that most adolescents understand spiritual and moral concepts such as determination, humility, pride, sincerity, and kindness. As a result of mastering the basics of science in their life experience, a stable religious and scientific worldview is formed, on the basis of which moral ideals begin to emerge.

The most important psychological trait in adolescence is the development of a sense of adulthood. The feeling of greatness is expressed in the socio-moral sphere, in mental

activity, in interests, in attitudes, in the process of entertainment, in the external forms of behavior. It is these social conditions that directly affect the behavior of adolescents by changing their psychological climate, misbehavior, stubbornness, lack of recognition of their shortcomings. During this time, the adolescent says goodbye to a happy childhood, but has not yet found his place in adult life. The driving force behind a adolescent's mental development is the manifestation of a system of contradictions between the new needs that create his activity and the ability to meet them. Conflicts can be gradually resolved by ensuring the psychological maturity of the adolescent, complicating the types of activities, the formation of new psychological qualities in his personality. When parents do not give this freedom to the adolescent, or when the adolescent knows it, they are in a position against the parent. It is important to note that it is through this communication and attitude that adolescents begin to develop a sense of pride. Of course, the rules and regulations of pride are learned from adults, but how to protect their pride is under the special control of adolescent.

Suicide is one of the most serious problems of modern society, and its urgency is specific to states with completely different socio-economic conditions, cultural and religious traditions. The available data show that every year about half a million trainees voluntarily leave their lives. Most suicides occur after adolescence (15-24 years), middle age (45-50 years) and the elderly - 70 years. Suicide is the leading cause of death in all countries of the world. The psychological meaning of suicide often lies in the reaction of exposure; in relieving emotional stress; one person is forced to avoid a situation that arises, and the other. People who commit suicide often suffer from severe mental pain and stress, as well as feeling unable to cope with their problems. A common cause of suicide is the socio-psychological adaptation that occurs under the influence of acute traumatic situations, the disruption of a person’s interaction with the immediate environment. However, for adolescents, it is often not a breakdown, but a breakdown in relationships with loved ones and family. Suicidal behavior usually occurs without psychopathology, both with psychopathy and with characteristic stress - in the latter case, it is one of the forms of deviant behavior in acute affective or pathocaracterological reactions.

One well-known classification of suicidal behavior is given in E.Durkheim’s fundamental sociological work Le Suiside (1897). In his work, the author shows that there is no imperative connection between mental illness, alcoholism and the like, and individual circumstances such as suicide. E. Durkheim distinguishes three types of suicide:

1) "selfish", caused by the fact that the social demands for a particular person due to the conflict, the norms of behavior imposed by society on the person can not be accepted; A typical social cause of suicide, called “selfishness” in social societies, is the weakening of social ties and individual isolation. For someone, life loses its meaning and there is nothing to do with it. This type includes suicide that occurs for religious reasons or due to a breakdown in family relationships (e.g., loss of spouse or child, failed marriage, etc.).

2) “altruistic”, executed for the benefit of other people; In this case, individual life is of little importance to man. The most common reasons for altruistic suicide are the suicide of dead patients who do not want to free the family from the “extra mouth” or be a heavy burden for their relatives.

3) crisis situations in life, such as “anemia” associated with personal tragedies.

Almost everyone who thinks seriously about suicide will tell others clearly about their intentions. Sometimes these are subtle tips; often threats can be easily identified. Most suicides are looking for an opportunity to speak and hear. However, they often do not meet anyone who listens to them.

At the heart of suicide is socio-psychological incompatibility in the context of interpersonal conflicts and, in rare cases, the expression of an individual’s claim to society. In turn, the processes taking place in society are reflected in the nature of interpersonal relationships. According to the experience of other countries, the catalyst for the increase in suicide and suicide attempts is poverty, unemployment, increased crime, neuropsychological and

psychosomatic diseases, weakening of traditional family ties, social indifference of the population , interruptions, inability to reconcile with adults in adolescence, and so on. It is considered as an indicator of mental health and social welfare of the population.

Behavioral Symptoms in Suicidal Adolescents:

- Distribute what is important to him to other people; arrangement of things; to resist old enemies;
- Demonstration of radical changes in behavior, for example: in food - too little or too much consumption;
- in appearance - remains flexible;
- school habits - skipping classes, not doing homework, not communicating with classmates; showing nervousness, frustration; will be in a depressed mood;
- is indifferent to the world around him; begins to feel euphoria or depression;
- is felt in the actions of helplessness and despair.

Symptoms of suicide:

Before committing suicide, a special emotional state emerges, which is a feeling of isolation (no one understands me, I don't care about anyone), helplessness, despair, and my own insignificance (shame, sense of failure, self-doubt). This set of experiences motivates the patient to seek a solution. Since the situation seems insurmountable, the only thing for the patient - suicide - is the last resort. As a rule, suicide does not happen without warning. Most adolescents who attempt suicide almost always warn about their intentions: they talk or act, get frustrated, they do things that serve as a warning to think about lim, and die. Only a minority does not share plans to share their lives. One of the friends is always updated. There comes a period of preparation before a real suicide. Usually the duration of this period is a few days, often patients remain with suicidal ideation for several years. At this time, patients think about the current situation, analyze the events in which they decided to commit suicide, and think about the possible consequences of suicide. Patients choose a way out of life, determine the path, time and place, and plan a sequence of actions. Patients who plan to commit suicide distribute debts, clean their homes, sort documents, write wills, apologize to enemies, visit friends homes, and give valuables to others. Patients often leave suicide records, in which they explain the reasons for the suicide, apologize, or blame someone for their death. Before committing suicide, many patients wash, urinate, and defecate, and wear clean clothing. Some create the conditions for the body to be identified in a timely manner - they give their friends the key to the apartment, ask to enter at a certain time, and others can be seen as a specific sign of suicide.

According to the American psychologist A. Gezell: Suicide is mainly committed among adolescents under the influence of emotional emotions. This is the affective type of suicide attempt. In such cases, the adolescent acts suddenly without a clear plan of action. As a rule, there is a strong anger, anger - a shadow of perception of reality, and the adolescent begins to commit suicide. With affective suicidal behaviors, they often resort to hanging, poisoning, and intoxication with powerful drugs.

N.V. Konanchuk, V.K. Myager identified three main qualities for a suicide bomber:

1) high stress of needs;

2) high need for emotional intimacy in high-importance relationships; 3) low frustration tolerance and weak ability to compensate.

Many of the symptoms associated with suicide are similar to depression. Its main symptom is a loss of the opportunity to enjoy and enjoy things that previously brought happiness. The movements and moods are like fatigue and tasteless. The psyche is devoid of strong emotions. Man is faced with despair, guilt, self-blame, and nervousness. Motor activity is significantly impaired or, conversely, loud, fast, sometimes uninterrupted speech is delivered, filled with complaints, accusations, or asking for help. Often there is fatigue such as sleep disturbance or waves. Symptoms of somatic discomfort include tremors, dry lips, and rapid breathing. Unconditioned somatic disorders manifest as pain in the head, side, or abdomen. People who suffer from depression constantly feel unwilling, guilty, and useless, leading to the conclusion that life has no meaning. Psychogenic causes of depression are often associated with loss: the loss of friends or loved ones, your health, or any familiar objects (e.g., habitual residence). Usually people do not commit suicide because

of any problem. Often they try to die not because of a single failure, but because of a series of failures.

Suicide Prevention in Adolescents

If you think a adolescent is likely to commit suicide:

- If a adolescent wants to share his problems with you, do not push him. Remember that adolescents rarely consult a specialist about their tendency to commit suicide.

- If you feel that a adolescent is prone to suicide, trust your professional intuition. Ignore Suicide Warning Signs - Don't Believe You Can Help Your Adolescent In Areas You Can't Help "Your Family Will Help You Solve This Problem" You'll still forget everything, "These problems aren't worth your mental anguish."

- Tell the adolescent to help him get out of the current situation. But tell him that there is no need to keep this problem a secret, especially in situations where the adolescent's life is in danger.

- Remember that no matter what the content of the conversation, it will control you

- Remember to speak in a sincere tone in a conversation with a adolescent Try to determine how serious the risk of suicide is emotionally close to a adolescent about his suicidal thoughts, say that a sincere conversation can lead him to deepen his suicidal thoughts . In fact, it may be easier for a adolescent to talk openly about his or her problem with someone.

- Carefully try to find out if there are any definite plans that could endanger the life of a adolescent

- Try to convince the adolescent that there are people who can help him solve his problem

- Do not try to reassure the adolescent with phrases that are appropriate in all situations. For example, "If you sleep well now, you will feel better tomorrow."

- Ask the adolescent to talk about the feelings that surround him or her, and tell him or her not to criticize those feelings.

- Help the adolescent to manage his or her crisis situation. Emphasize several times that there are other ways to deal with the situation.

- Try to find people who can help reduce the level of stress in a adolescent. Understand that a adolescent's feelings of frustration are not constant.

- treatment of psychological and physiological symptoms of depression;

- increase the ability to cope with difficulties - for people who are seriously considering suicide;

- Decreased prevalence of conditions that are considered a risk factor for suicide;

- Communication with a person who gives him hope for a better life after solving existing problems.

- good interpersonal relationships and family support;

- high level of self-management, high personal efficiency, realistic outlook on life, ability to adapt to the situation and overcome it;

- Hope, future plans, life satisfaction are also factors that prevent suicide;

A tentative questionnaire to determine the level of suicide risk

1. Why are you applying right now?
2. Have you been depressed lately?
3. Have you ever thought about the disappointments of life?
4. Have you ever considered suicide? How many times?
5. Have these thoughts continued? How long have you been thinking?
6. Have you committed suicide?
7. In what way?
8. Who helped you save your life? How did it help? 9. How did you feel then?
10. How do you plan to commit suicide again?
11. Can you tell me? “Do you still have suicidal thoughts? In what cases and for how long will these thoughts last?
12. Are there important situations in your life that lead to strong decisions?
13. Do you have any plans? How?
14. How do you want to achieve your plans?

References

1. Umumiy sotsiologiya.Toshkent: ToshDU, 1999, 42-bet.
2. Avezova.O Inqiroziy vaziyatlarga duch kelgan kishilarga psixologik yordam ko'ratish T. 2002.
3. Felshteyin D.I «Usmir davri tarakkiyoti». M.MGU, 1996 yil.
4. To`ychieva G.U., Asadova E. Yoshlar va konfliktlar echimi. Manual. T.: 2008
5. Nemov R. S. «Psixologiya» T. 1.M. 1998y 83- bet
6. Профилактика детского и подросткового суицида и иных социальных отклонений: МУ «Центр социально-психологической помощи детям и молодежи «Форпост», Екатеринбург 2010.

Websites

1.https://www.ziyonet.uz
2.https://www. Kutubxona.uz.
3.https://www.bilimdon.uz

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

THE INFLUENCE OF CULTIVATION PRACTICES ON THE YIELD OF SECOND CROPS PEANUT, SOYBEAN AND MUNGBEAN

N.G. Yodgorov[1].
[1]doctor of philosophy on agricultural sciences (PhD), senior researcher.
Research institute of cereals and legumes, Kashkadarya branch.

Abstract. In this article, the data from the study has been presented about the positive effect of the increase in plant density on vegetative parts in peanut, soybean and mungbean crops sown after winter wheat as second crop in the conditions of irrigated light gray soils of Kashkadarya region, but the negative effect of exceeding the norm in sowing and plant density on generative parts and on budding stages to full maturation stages, and a significant decrease in productivity.

Key words. plants, growing technology, sowing time, kind of culture, re-culture, influence of agricultural technology.

Introduction

In the process of modernization of agriculture, programmatic work is being carried out to ensure intensive, efficient use of irrigated lands and improve the reclamation of soils. The soil and climatic conditions of the republic allow to get the second and third harvests from the areas freed from the harvest of grain crops sown in the fall, by sowing second and intermediate autumn crops. In the territory of Uzbekistan, since the ancient times, farmers have made more harvest in irrigated lands by sowing second crops for stubble in the fields freed from winter wheat and barley [1]. In our country, after the harvest of autumn cereals, there is a great opportunity to grow secondary crops instead. For example, if the grain crops are harvested in the period of June 15–20, then sunny days lasts 4 months, that is, 110–120 days. During these months, our soil receives a sum of useful temperatures of 1600-1800 oC. This makes it possible to sow and harvest secondary crops in the country after the autumn grain crops [2].

For the optimal growth and development of agricultural crops a process of creating a favorable environment for various processes in the soil is necessary, for which special attention should be paid to the type of crops grown and the agronomic practices of their care [3].

In the study of biological and ecological properties of crops, the development and implementation of advanced technologies suitable for certain soil and climatic conditions ensures a rich and high-quality harvest [4].

Several factors, such as soil, climate, fertilizers, and water, affect the growth and development of plants. That is, under the influence of these factors there is a common integrity in the growth and development of plants, the physiological and biochemical processes in the plant body, their nutrition through the roots and air, energy supply for growth, in general, the sum of all processes involved in assimilation and dissimilation is acceptable [5].

Main part. Taking into account these factors, in the Kashkadarya region in the post-harvest period of autumn grain crops, the potential of solar energy can be fully used through the correct selection of types and varieties of secondary crops. In order to make full use of moisture, soil fertility, mineral and organic fertilizers in the hot period of the season, it has been determined that the proper cultivation practices influences positively on the yield of second crops if the growth period of second

crops, such as peanut variety “Salomat”, soybean variety “Orzu” and mungbean variety “Durdona” is considered in the fields freed from grain crops.

Field experiments the research were carried out in the conditions of light gray soils of Kashkadarya region, in the experimental area of the Kashkadarya branch of the Research Institute of Cereals and Legumes, located in the territory of Yakhshi Omonov MMTP, Karshi district. Laboratory and field experiments layout, biometric measurements, phenological observations and various analyzes were conducted according to the manuals "Methods of State testing for agricultural crops", "Methods of the research of legume crops", “The main provisions for determining the economic efficiency of the use of the results of research, new technology and inventions, rationalization proposals in agriculture”. Field experiments were carried out in 1 layout for 2 periods, 4 sowing rates, 3 replications. The calculated area of each plot was 180 m2.

According to the results of phenological observations obtained from the "Salomat" variety of peanut in the 1st period of re-sowing (June 25) in the experimental field, the plant height was 50,2 cm, flowers were 31,8 pieces in the variant with a seedling thickness of 330 thousand pieces/ha among the variants, while in another variant with the seedling thickness of 280 thousand pieces/ha, the plant height was 49,8 cm, the number of plant flowers was 37,1 pieces.

In the experiment, it was also found that the lowest plant height was 47,0 cm and the number of plant flowers was 30,3 in the variant with the plant thickness of 180 thousand pieces/ha, while in the variant with plant thickness of 230 thousand pieces/ha the plant height was 1,2 cm higher and the number of plant flowers 0,4 pieces more compared to the lowest indication.

When the growth and development of second crop peanut in the 2nd re-sowing period (July 5), the plant height was 38,7 cm and the number of flowers was 24,5 pieces in the variant with plant density of 330 thousand pieces/ha, while in the variant where the plant density made 280 thousand pieces/ha the plant height was 38,4 cm, the number of plant flowers was noted to be 28,6 pieces. The lowest rate in the experimental field was found to be 36,2 cm in height of the second crop peanut plant and the number of flowers in the plant was 23,3 pieces when the plant density was 180 thousand pieces/ha, in the variant with density of 230 thousand pieces/ha, the plant height was more by 0,9 cm and the number of plant flowers was 0,3 more relatively to the lowest indication.

According to the results of phenological observations on the growth and development of crops in the 1st sowing period (June 25) of the "Orzu" variety of secondary soybean studied in the experimental field, the highest indications were observed in the variant of second crop soybean with a plant density of 300 thousand pieces per hectare. The average height of the plant was 87,7 cm, the yielding shoots were 2,7 pieces and the number of pods was 35,1.

In accordance with results, it was also determined that the lowest rates were noted in the variants of soybean sown as secondary crop with plant density of 200 thousand pieces/ha, that is, the plant height made 82,8 cm, yielding shoots 2,4 pieces and the number of pods 31,1 pieces. Relative to the above variant with plant density of 300 thousand pieces/ha, the plant height of this variant was less by 4.9 cm, the yield shoots were less by 0,3 and the number of pods was less by 4.

According to the results of the analysis of phenological observations on the growth and development of secondary soybean crop in the 2nd period of experiments (July 5), the highest indications were observed in the variant of second soybean crop with a seedling thickness of 350 thousand pieces/ha. The average height of the plant was 38,7 cm, the number of yielding shoots was 2,1 and the number of pods was 25,9.

Also, in the second period (July 5) of planting of soybean as a second crop, the lowest rate on these indications were noted in the variant with plant density of 200 thousand pieces per hectare where the height of the plant was 63,8 cm, the number of yielding shoots was 1,9 and the number of pods was 24,0. Compared to the variant in which the highest indications noted, the plant height was less by 7 cm, the yielding shoots by 0,3 and the number of pods by 3,1.

In the experimental field, when analyzing

the data on crop growth after planting of the variety of mungbean "Durdona", in the 1st sowing period (June 25) the plant height was 55,3 cm, the number of pods 30,8 in the variant with a plant density of 110 thousand pieces/ha, while in other variant with plant density of 130 thousand pieces per hectare, these indications were 60,8 cm, and 30,4 accordingly among the variants.

In the experiment, the lowest plant height was 44,8 cm and the number of pods was 28,9, and these data were found to be related to the variant with a plant density of 70 thousand pieces/ha.

In accordance with the subsequent phenological observations on the growth and development of mungbean crop planted as secondary crop in the experimental field during the 2nd sowing period (July 05), in the variant with a plant density of 110 thousand pieces/ha, the plant height was 49,8 cm, the number of pods was 27,7, while in the variant with a plant density of 130 thousand pieces / ha, the plant height was 54,7 cm, the number of pods was 27,3.

The lowest indications was noted in the variant with a plant density of 70 thousand pieces/ha where the plant height was 40,3 cm and the number of pods was 26,0.

It was also found that the plant density had an impact on the yield of “Salomat” variety of peanut sown as a second crop. In particular, in the experimental field of the peanut crop planted for the 1st period (June 25) as a second crop, the optimal variant out of four (180; 230; 280 and 330 thousand units/ha) plant density was 280 thousand pieces/ ha. It was found that the yield of peanut in this variant was 22,5 quintals per hectare, which is 5,1 quintals more than the control option (180 thousand units/ha).

The optimal variant of second crop peanut re-planted in the 2nd period (July 5) was determined when the plant density was 280 thousand pieces/ ha, and the yield of peanut was 18,8 quintals per hectare. It was found that the yield was 4,3 c / ha more than the control (180 thousand units/ha) option.

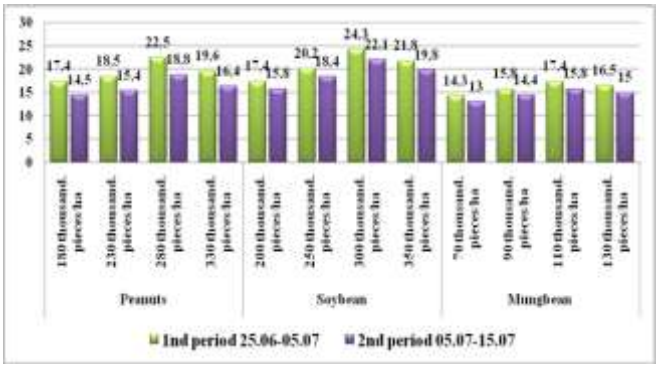


Figure 1. The effect of sowing time and norms on the yield indicators of second crops peanut, soybean and mungbean

Even in the variants planted in the 1st period of secondary crop soybean (June 25), the plant density had an effect on the legume yield, while the lowest soybean yield was observed in the variant with a density of 200 thous.pieces/ha (17,4 c/ha) while the highest soybean yield was observed in the variant where the plant density was 300 thousand pieces per hectare (24,3 c/ha).

According to the analysis of the results, in the variants where the second crop soybean was sown in the 2nd period (July 5), the yield was in the range of 15,8-22,1 quintals per hectare, the highest yield (22,1 c/ha) per hectare was observed when the plant density was 300 thousand. pieces/ha, the lowest yield (15,8 c/ ha) was found in the variant with a plant density of 200 thousand pieces / ha, i.e, less by 6,3 c/ ha.

In the variants in which second crop mungbean was sown in the 1 sowing period (June 25) with plant density 70; 90; 110 and 130 thous.pcs/ha, plant density had influence on the yield of pods, the lowest yield rate of mungbean was noted when the density was 70 thous.pcs/ha (14,3 c/ha), while the highest yield was in the variant with plant density of 110 thous.pcs/ha (17,4 c/ha)..

In the 2nd period (July 5)of mungbean sowing, the optimal variant was observed when plant density was 110 thous.pcs/ha, and the yield of the mungbean sown as second crop made 15,8 quintals per hectare. And in the studies it was determined that this indication was more by 2,8 c/ha more than the control variant (70 thous.pcs/ha)

Conslusion. Based on the above data obtained from the studies, it can be concluded that the increase in plant density had a positive

influence on vegetative parts in peanut, soybean and mungbean crops sown after winter wheat as second crop in the conditions of irrigated light gray soils of Kashkadarya region, but exceeding the norm in sowing and plant density affected adversely on generative parts and on budding stages to full maturation stages, and caused significant decrease in productivity.

According to data from field experiments, it was determined that in the variety of peanut “Salomat”, variety of soybean “Orzu” and in mungbean variety “Durdona” planted in the early period (June 25) as an optimal secondary crop after winter wheat, plant density of 280; 300; 110 thousand pieces per hectare can result in higher yield of crops of 22,5; 24,3; 17,4 c/ha.

References:

1. Mukhamedov U., Tillaev R. Ways to increase the efficiency of secondary crops in different soil and climatic conditions of Uzbekistan. // Status and prospects of development of technology for growing crops in the cotton complex. Tashkent. 1996. –pp.245-249.

2. Kenjaev Yu, Oripov R. Growth and development peculiarities of second crops // Uzbekistan agriculture journal. AGRO ILM appendix. Tashkent, 2007. -№3.-p. 14.

3. Atabaeva Kh.Kh., Mamedov N.M. Yield of safflower planted after winter wheat. // Collection of articles based on reports of international scientific-practical conference named “Scientific and practical bases for increasing soil fertility”. Tashkent, 2007. -pp. 251-253.

4. Iminov A.A. Second crops and winter wheat. “Water- and resource-saving agrotechnology in agriculture of the Republic of Uzbekistan”. –Tashkent, 2008. -pp. 350-352.

5. Iminov A., Kholikov B. Influence of sowing rate and second crops on soil volume weight. Scientific basis for the development of cotton and grain farming on farms. // Collection of articles based on reports of international scientific-practical conference. Tashkent, 2006 –pp. 91-92.

ISSN: 2181-1253 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

TEACHING FOREIGN LANGUAGE TERMINOLOGY AT A NON-LANGUAGE UNIVERSITIES

Bakirova H.B.[1]

[1]*English teacher at UzSWLU, Tashkent, Uzbekistan*

Abstract. The article discusses teaching foreign language terminology in a non-linguistic university within the framework of a modern, competence-based approach to teaching foreign languages. It analyzes the mastery of the lexical skills necessary for professional communication in a foreign language. In addition, the terminological competence of a specialist was investigated as the basis for the formation of professional foreign language communicative competence of future specialists and is one of the main tasks of teaching a foreign language in a non-linguistic university.

Key words: special terminology, communicative competence, lexical skills, speech skills, professional communication, the concept of term, technical discourse.

Introduction

The mastery of special terminology, which constitutes the lexical core of the language of any field of knowledge, is considered by methodologists as the basis for the formation of professional foreign language communicative competence of future specialists and therefore is one of the main tasks of teaching a foreign language in a non-linguistic university [9, p. 67]. In this regard, the search for new methodological solutions that, in practice, would ensure a high-quality mastery of foreign language terminology by students in their professional field does not lose its relevance.

Within the framework of a modern, competence-based approach to teaching foreign languages, it seems obvious that mastering terminology should be considered, first, as mastering the relevant lexical skills necessary for effective information retrieval and information-analytical activities, as well as for professional communication in a foreign language. The issue of mastering special terminology, which constitutes the lexical core of the language of any branch of knowledge, is considered by methodologists as the basis for the formation of professional foreign language communicative competence of future specialists and therefore is one of the main tasks of teaching a foreign language in a non-linguistic university [7, p. 89]. In this regard, the search for new methodological solutions that, in practice, would ensure a high-quality mastery of foreign language terminology by students in their professional field does not lose its relevance.

Methods and materials

One of the tasks of modern professional education is mastering a professional language. Terminology has several functions on different stages of

becoming a specialist at the stage of professional training acts as a source of knowledge and a tool for mastering professional experience, during the period of professional activity a means of professional communication and the theoretical basis for the professional growth of a specialist through her replenishment and renewal. Therefore, confident knowledge of the terminology of the relevant field of knowledge is traditionally is an indicator of the quality of assimilation educational material within the educational process and its active use in communication among professionals promotes mutual understanding and cooperation when sharing experiences. The modern pedagogical community recognizes the need for terminological literacy for professional activities. This is confirmed by the actualization of the problem of formation and development terminological competence on different levels of professional development.

Within the framework of a modern, competence-based approach to teaching foreign languages, it seems obvious that mastering terminology should be considered, first, as mastering the relevant lexical skills necessary for effective information retrieval and information-analytical activities, as well as for professional communication in a foreign language. The question of the formation of speech skills and abilities is one of the central in the methodology of teaching a foreign language, because it is they that largely determine the level of formation of the foreign language communicative competence in general, the degree of readiness to use a foreign language as a means of communication. The problem of developing speech skills has attracted and continues to attract the attention of many specialists; nevertheless, some issues remain unresolved. So, in particular, the methodology of teaching professionally oriented foreign language vocabulary is recognized as insufficiently developed, including the methodology for developing lexical skills and abilities when teaching special foreign language vocabulary [8, p.78]. In this article, we would like to highlight some key aspects of this problem and offer a possible methodological solution to one of its aspects.

The "New Dictionary of Methodological Terms and Concepts" proposes to interpret the term as "a word or phrase that defines a concept from different fields of knowledge", and the terminology, respectively, as "a set of terms used in any field of science, technology, art and etc." [1, p. 309].

Meanwhile, in terminology it there is still no generally accepted definition of the concept of "term". “If we sum up all the research on terminology,” writes Z.I. Komarova, “then we can come to the conclusion that there is no unit more multifaceted and indefinite than a term” [6, p. 3].

In connection with the “uncertainty” of the term, it is not surprising that for methodologists, the problem of teaching special vocabulary continues to be the topic of many discussions for decades. In recent years, both in the study of terminology and in the methodology, the cognitive approach, which has developed within the cognitive-discursive paradigm of scientific knowledge as a whole, has become especially widespread. The mastery of special vocabulary began to be considered in a broader context - as a necessary condition for the formation of a professional linguistic picture of the world and the formation of the linguistic personality of a future specialist [11, p.100]; this approach has also become a conceptual methodological basis for the creation of new terminological educational dictionaries-minimums [10, p.145].

The term is born in speech, in discourse, serves as a means of materializing developing knowledge. The new approach has increased the interest of scientists in the very texts of scientific and technical discourse as an environment for the direct functioning of terms, because of which new important

conclusions were drawn regarding the functional features of the latter. "Attention to the living functioning of terms in real texts" in the process of teaching special vocabulary of both native and foreign languages is necessary.

This is determined both by the specific features of the terms themselves, which, according to V.M. Leichik, are born in speech, in discourse, and by the requirements of a modern, communicative approach to teaching foreign languages. Within which the text is a product of speech activity, as an example of that how the language functions is “the initial and final unit of learning” [2, p. 35]. In this regard, it seems natural and logical that methodologists in close connection with the problems of teaching professionally oriented reading most often consider many issues related to teaching special vocabulary. One of the most important aspects here is the presentation of new terms, on which both the subsequent perception of the text and the degree of its understanding, as well as the likelihood of mastering the new words themselves, the stability and flexibility of the corresponding speech skills formed in the process of working on vocabulary, largely depend.

Results and discussing

While recognizing the importance of familiarizing students with some theoretical aspects of term formation and use in the foreign language being studied. We nevertheless, consider not very well-founded a very widespread practice, when such acquaintance occurs already at the pre-text stage, i.e. when the reading of the text is preceded by the schematization of terms, as well as the explanation and discussion of their structural-semantic and other features.

The formation of terminological competence among foreign students of technical universities in the aspect of scientific style can be carried out in different ways of organizing the educational activities of students. The selection and organization of linguistic means of the scientific style should satisfy the communicative needs of students, provide them with a phased solution of communicative tasks.

Terminological vocabulary carries the greatest informative load. In this regard, the meaning of terminological vocabulary is one of the main conditions for understanding the utterance.

When studying English as a foreign language, the greatest difficulty for students is the adequate semantisation of terms.

In the system of medical terminology, the dependence of the semantics of a term on its word-formation structure is especially clearly traced.

Knowledge of the main methods of word formation, the definition of its grammatical function by the form of a word makes it possible to better navigate a scientific text, develops a linguistic guess and a sense of language. Recognizing familiar elements in unfamiliar words and establishing their meaning, students gradually master not only the lexical units themselves, but also the method of understanding them.

Despite the fact that the low level of special knowledge of primary students often turns out to be a very serious obstacle to understanding a foreign language text in their specialty, in this case, on the contrary, it serves as a rather positive factor. It allows the teacher to formulate such questions, the exact answers to which students, most likely, will not know, but based on the proposed options, they will be able to put forward certain assumptions. This creates additional motivation to read the text as an opportunity to check your own correctness. Moreover, this attitude is the most preferable because it is typical of a reading situation for professional purposes. As T.S. Serova writes, a characteristic feature of professionally oriented reading is that “the fact that it assumes the reader must have a formed plan of expectations, a hypothesis with

which he starts reading any source" [12, p. 9].

The breakdown of the text into separate blocks, made to facilitate its perception by students and reduce the load on their memory, does not contradict the typical logical-compositional structure of a scientific text, the main unit of which is a paragraph that has its beginning, the main paragraph phrase, a commentary part and a conclusion. Moreover, the texts used in the framework of professionally oriented teaching of a foreign language at a university, most often represent, in the form of expression of thought, texts-explanations [5, p.30], which in the structural plan can be represented as following one after another micro texts, united by a common theme. Thus, the block division of a scientific text can be considered as it is maximally "sparing" methodical processing and makes it relatively easy and "with minimal losses" to adapt materials from authentic foreign language sources to the educational process.

Each proposed question should not touch upon individual particulars, but relate to the key information of the block, thereby denoting its topic. Thus, students begin to read the block, already having an approximate idea of what it is about, i.e. having an adequate semantic hypothesis. This is extremely important because in most cases, students who traditionally have a low level of language training and insufficient experience in reading in a foreign language are unable to correctly predict the content of the text based on certain well-known words and expressions.

"The absence of an adequate semantic hypothesis," writes T.V. Vshivkova, "does not allow seeing an integral situation behind the words of the text" [4, p. 501] and therefore often leads to a distorted understanding of it. In this sense, students, of course, need support, because the ability to perceive a text not discretely, not in parts, but in its integrity, in the unity of all its structural elements, is formed very slowly.

Consolation

In conclusion, we note that the set of proposed answers, of course, is largely determined by the content of the text and the question posed. However, in most cases it remains possible, firstly, to focus on the linguistic aspects of the material to be studied (for example, by offering students terms as answers, having a similar structure). Secondly, to adapt the task to the level of special training of students (for example, to facilitate it by offering, among others, categorically inappropriate answers, thereby narrowing the range of possible options). In general, it can be stated that the proposed method of working with special texts meets the basic requirements of the communicative approach, creates the conditions necessary for the qualitative formation of the relevant lexical skills, and contributes to the development of professionally oriented reading skills, in particular, the ability to anticipate.

So we consider terminological competence as a component of more a broad type of competence - professional. Thus, terminological competence means the ability and readiness of a specialist to competently apply terminology in solving professional problems, while using the minimum amount of personal, material, time and other resources.

REFERENCE

1. Azimov E.G., Shchukin A.N. New dictionary of methodological terms and concepts (theory and practice of teaching languages). - M.: Publishing house IKAR, 2009.448 p.
2. Akishina A.A., Kagan O.E. Learning to teach. For an RFL teacher. - M.: Russian language. Courses. - 2008.256p.
3. Vepreva T.B. Teaching professionally oriented foreign language vocabulary of students of non-linguistic specialties on the basis of an integrated course: dis. ... Cand. ped. sciences. SPb., 2012. 182 p.

4. Vshivkova T.V. Development of predictive ability in teaching understanding of text in a foreign language // Formation of the humanitarian environment in the university: innovative educational technologies. Competence approach. 2014.Vol. 1. P. 499-502.
5. Kolker Y.M. Theoretical substantiation of the sequence of teaching the written expression of thoughts in a foreign language (English language, language university): author. dis. ... Cand. ped. sciences. M., 1975. 34 p.
6. Komarova Z.I. On the essence of the term // Term and word. Interuniversity. Gorky: ed. GSU them. N.I. Lobachevsky, 1979. P. 3-13.
7. Mironenko E.V. Teaching special lexical competence of cadets-navigators on the basis of pseudo equivalent terminology of maritime English: dis. ... Cand. ped. sciences. Pyatigorsk, 2013. 244 p.
8. Mitrofanova K.A. Teaching foreign language vocabulary of the medical sphere of medical students: dis. ... Cand. ped. sciences. Ekaterinburg, 2010. 168 p.
9. Molchanova Y.A. Methods of teaching professional terminology to students of a non-linguistic university based on compensatory competence (English): dis. ... Cand. ped. sciences. N. Novgorod, 2009. 206 p.
10. Pozdnyakova S.Y. Cognitive approach to the selection and organization of the educational vocabulary-minimum of highly specialized military aviation terms German, non-linguistic university): dis. ... Cand. ped. sciences. Irkutsk, 2005. 217 p.
11. Pozdnyakova S.Y. Specificity of the cognitive approach in the paradigm of teaching foreign language professional communication // Zabaikal state university. Series: Pedagogical Sciences. 2017. Vol. 12. № 2. P. 134-140.

ISSN: 2181-1253 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

THE EFFECT OF THE CONCENTRATION OF SOIL SOLUTION OF VARIOUS AGRICULTURAL BACKGROUNDS COTTON YIELD

Sidikov S.[1], *Ermatova M.*[1]

[1]*National University of Uzbekistan named after Mirzo Ulugbek, 100174, 4 str. University, Tashkent, Uzbekistan.*

Abstract. The influence of the chemical composition and concentration of the soil solution of various agrofonds on the nutrient content in the cotton variety Namangan-77 and its yield was studied. As a result of studies, it was found that at a low concentration of soil solution the plant develops poorly, it cannot absorb a sufficient amount of nutrients and, conversely, a high concentration of the solution also negatively affects the plant. The optimal concentration is the most favorable environment for plant development, which helps to accelerate the absorption of nutrients by plants and to ensure high crop yields. The amount of nitrogen, phosphorus and potassium in the organs of cotton depends on environmental conditions. This directly affects the growth, development and productivity of cotton. Therefore, when using 300 kg of nitrogen, 210 kg of phosphorus and 150 kg of potassium per hectare under typical serozem conditions, optimal conditions were created for the growth and development of cotton variety Namangana-77. This provides a high yield of cotton. The results obtained are of great theoretical and practical importance in the knowledge of metabolic reactions in the soil-absorbing complex between the absorbed ions and ions in the solution; actions of fertilizers, irrigation and processing technologies on this process; scientifically sound application of fertilizers, as well as in the educational process of higher educational institutions.

Key words: soil, soil solution, anions, cations, concentration, agrotechnical measures, mineral fertilizers, agricultural background, nutrients, cotton, yield.

Introduction

Relevance of the topic. In agricultural production, the main means is soil. The properties of the soil, especially the optimization of the soil solution for plant nutrition, are the main guarantee of obtaining a high and high-quality crop.

Soil solution plays an extremely important role in the process of mineral nutrition of plants, since all the processes of chemical and biological conversion of organic and mineral compounds are carried out with the direct participation of the liquid phase of the soil. This function of the soil solution can be generally called transformational. The significance of studies of a soil solution under pressure from natural and anthropogenic factors lies in the fact that the soil solution can be optimized for plant nutrition.

Currently, one of the main tasks of agriculture is to maintain the state of the soil solution for optimal plant nutrition. In this regard, the study of the composition and concentration of soil solution, the creation of its favorable condition for plant nutrition is an urgent task of agriculture.

Methods and materials

The object of research is the experimental section of the Department of Soil Science of the National University of Uzbekistan named after Mirzo Ulugbek. Subjects of research - Namangan-77 cotton variety, old-irrigated typical serozem, agrotechnical measures, mineral fertilizers, soil solution.

Purpose, research objectives and major versions. The main goal of the research is to develop a method for optimizing the soil solution of irrigated soils for plant nutrition based on the study of its composition and concentration. To achieve this goal, the following tasks were accomplished: conducting a field experiment on an old irrigated typical serozem, determining the composition and concentration of soil solution, studying the influence of the chemical composition and concentration of the soil solution of various agrofonds on the nutrient content in cotton Namangan-77 and its yield. The scientific novelty of the topic. For the first time under the conditions of an irrigated typical serozem, the composition and concentration of the soil solution were isolated and studied. The influence of the chemical composition and concentration of the soil solution of various agraphones on the content of nutrients in the cotton variety Namangan-77 and its yield is determined.

Studies on the isolation, determination of the composition, concentration of the soil solution and its effect on the growth, development, and productivity of cotton are determined by common methods in agricultural chemistry. To isolate the soil solution, the technique of displacing it with Ischerekov-Komarova was used, where ethyl alcohol was used as a displacer.

Results and discussing

Studies on the development of a method for optimizing the composition and concentration of the soil solution of the irrigated typical serozem for plant nutrition were carried out at the experimental site of the Department of Soil Science, located on the territory of the Botanical Educational and Scientific Center of the National University of Uzbekistan named after M.Ulugbek. Field experience consists of 4 options.

The soil of the experimental plot is characterized by a very low content in both the arable and sub-arable layer of humus, nitrogen, as well as the mobile forms of phosphorus and potassium. The studied soils are carbonate. The upper boundary of the distribution of carbonates is 15-25 cm, and the lower is 70–120 cm.

According to the results of field experiments conducted on typical irrigated soils, the concentration of soil solution changes during the growing season. The concentration was higher at the beginning of the growing season (Fig. 1).

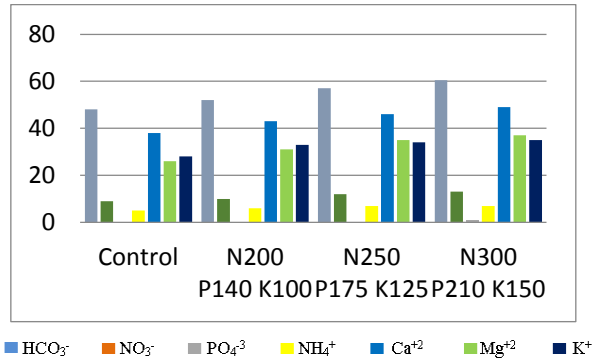


Fig. 1. The concentration of soil solution (beginning of vegetation)

The concentration of the solution decreases during plant development and intensive nutrition of elements (at the end of the growing season) by a small amount (Fig. 2).

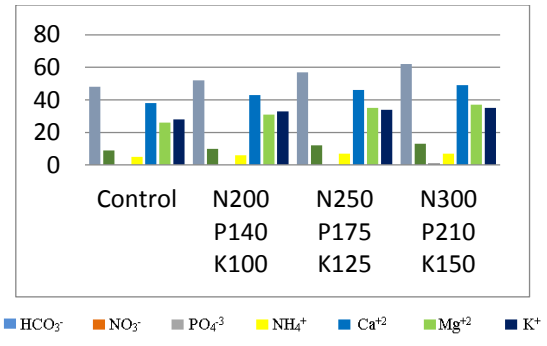


Fig. 2. The concentration of soil solution (end of vegetation)

The results obtained indicate that during the budding period, that is, in the active phase of physiological processes, the nutrient content in all organs of cotton is higher. The greatest amount of nutrients was observed in the cotton stalk, and then on the leaf. In the stem and roots, their amount is less than 40-50%.

Depending on the composition of the soil solution, it was found that the amount of nutrients in the organs of cotton, in particular the amount of phosphorus, was high in the buds and leaves of cotton. It was noted that the amount of phosphorus contained in cotton depends on the ratio of nutrients in the soil solution. In the variant where the ratio of nitrogen and phosphorus is 1:0,7, the amount of phosphorus in cotton is less, and in the variant with a ratio of 1:1 it is relatively larger. The greatest amount of potassium during the budding of the growing season, since nitrogen and phosphorus, was observed in the leaves and buds of cotton. Their number in the stem and roots of the plant is relatively small.

In the final phase of cotton growth, that is, at the end of the growing season, the amount of nutrients in the organs of the plant was closely varied depending on the concentration of the soil solution (Table 1).

As can be seen from the data in table 5, by the end of the growing season, it was found that the amount of nitrogen, phosphorus and potassium in the organs of cotton decreased sharply. Especially the amount of nitrogen in the leaves is noticeably reduced. This can be explained by a decrease in the concentration of soil solution and reuse of nitrogen. By this time, the amount of nitrogen in the stem is reduced. However, it should be noted that the amount of nitrogen in the seeds is much higher. The data obtained at the end of the growing season show that the phosphorus content in all organs of cotton has decreased as well as other elements. During this time, it was found that the amount of phosphorus is higher in the leaves and seeds of cotton, and less in the stem and root.

The total potassium content at the end of the growing season decreased significantly compared to other elements. However, the difference between the experimental options remains.

Table 1. The effect of the concentration of soil solution of various agricultural backgrounds on the content of nutrients in cotton varieties Namangan-77, %

Options	Cotton Bodies	Nitrogen	Phosphorus	Potassium
The control	Leaves	1,57	0,40	1,28
	Stem	1,25	0,40	1,63
	Box	1,25	0,55	0,82
	Fiber	1,35	0,74	1,20
	Root	2,23	1,21	3,10
N200 P140 K100	Leaves	1,80	0,99	2,48
	Stem	1,69	0,46	1,69
	Box	1,35	0,65	1,48
	Fiber	1,80	0,90	1,52
	Root	2,30	1,28	3,40
N250 P175 K125	Leaves	1,92	1,02	2,52
	Stem	1,68	0,48	1,72
	Box	1,35	0,65	1,42
	Fiber	1,86	0,89	1,54
	Root	2,64	1,30	3,51
N300 P210 K150	Leaves	2,00	1,03	2,75
	Stem	1,79	0,52	1,78
	Box	1,38	0,68	1,78
	Fiber	2,03	0,98	1,60
	Root	3,02	1,45	3,59

As you know, the metabolic process in plant organs slows down as the end of the growing season approaches. The nutrients in the leaf are used to synthesize organic matter. As a result, the amount of nutrients in the plant decreases. Depending on the use of nutrients from the soil solution, the removal of nitrogen, phosphorus and potassium also increases.

When studying the influence of norms and ratios of fertilizers on soil fertility and crop productivity, the main attention is paid to the ripening speed. This indicator is determined by harvesting over a period of time and comparing the results.

Table 2 shows the results of the harvest. According to the data obtained, unfertilized and mini-fertilized versions of the experiment, the buds ripen relatively faster. With an increase in fertilizer norms, the concentration of soil solution increases, which increases the yield of the crop, however, ripening is late. For example, in an unfertilized version, 50%

of the cotton crop was harvested at the first harvest. On fertilized options, cotton harvested in the first crop is 10% less.

Table 2.Effect of fertilizer rates and soil concentration cotton yield

Options	1-fee		2-fee		3-fee	
	c/ga	%	c/ga	%	c/ga	%
The control	10,91	45,80	5,94	27,60	2,06	20,60
N_{200} P_{140} K_{100}	12,14	35,76	11,73	35,50	9,16	27,74
N_{250} P_{175} K_{125}	13,96	38,42	12,63	34,77	9,74	26,80
N_{300} P_{210} K_{150}	15,18	37,76	14,70	36,55	10,33	25,69

The lowest cotton yield was obtained in the variant with a low concentration of soil solution. The yield in this embodiment is 36,33 c/ga when using fertilizer in the norm of N_{250} P_{175} K_{125} per hectare. When fertilizer rates increased to N_{300} P_{210} K_{150}, the concentration of the solution increased and the yield increased to 40,21 c/ga, that is 22,41 c/ga higher than control.

Thus, in fertilized versions, the opened boxes occur later. The main part of the total crop (70-75%) was harvested in the first and second harvests, and the smallest part (25-30%) was harvested in the third harvest.

In general, field experimental results show that at a solution concentration of 15,7-25,9 l/mmol, the conditions for plants were improved by improving plant development and the maximum yield was obtained at a concentration of 25,9 l/mmol. An increase in the concentration of the soil solution has a negative effect on the plant, causing the leaves to dry. Therefore, when forming a fertilizer system, this indicator must be taken into account, taking into account the different resistance of different cultures of the solution concentration.

The soil of the experimental plot is characterized by a very low content in both the arable and the subsoil layer of humus, nitrogen, and also mobile forms of phosphorus and potassium.

We studied old-irrigated typical serozems in the soil solution, many compounds are in ionic form. Among them, Ca^{+2}, Mg^{+2}, and Na^{+} ions predominate. Ions K^{+}, NH_4^{+}, H^{+} are always present.

The obtained data from the field experiment show that the composition of the soil solution, the concentration and ratio of various compounds in it are subject to seasonal variation during the growing season. This is facilitated by the process of plant nutrition. Especially, in the middle of the growing season (July, August), noticeable changes occur in the composition of the soil solution. During this growing season, the content of nutrients in the soil solution increases, and the drying function of the cotton root system is enhanced. This is due to the achievement of the nitrification process in the soil to the maximum point, an increase in the activity of phosphatase and the content of carbon dioxide in the soil air. As a result, the content of nitrogen, ammonium, and phosphorus in the soil solution increases. At the same time, significant changes in the soil environment will occur in the middle of summer. As a result, the environment changes to the alkaline or slightly acidic side.

In later periods of vegetation as a result of direct exposure to the plant, the amount of calcium ion in the soil solution decreases and the amount of potassium ions increases. As a result, the ratio of potassium ions to calcium ions expands. The process of entering nutrients into the root system depends on this ratio: the greater the ratio in the solution, the stronger the absorption capacity of the root or vice versa. This directly affects the growth, development and productivity of cotton. Therefore, when 300 kg of nitrogen, 210 kg of phosphorus and 150 kg of potassium per hectare are used under the conditions of a typical serozem, optimal conditions for the growth and development of cotton variety Namangana-77 are created. This provides a high yield of cotton.

The results obtained are of great theoretical and practical importance in the knowledge of metabolic reactions in the soil-absorbing complex between the

absorbed ions and ions in the solution; the action of fertilizers, irrigation and processing technologies on this process; scientifically sound application of fertilizers, as well as in the educational process of higher educational institutions.

Conclusion

Soil properties, especially the optimization of soil solution for plant nutrition, are the main guarantee of obtaining a high and high-quality crop.

Studies on the development of a method for optimizing the composition and concentration of the soil solution of the irrigated typical serozem for plant nutrition were carried out at the experimental site of the Department of Soil Science, located on the territory of the Botanical Educational and Scientific Center of the National University of Uzbekistan named after M.Ulugbek.

The soil of the experimental plot is characterized by a very low content in both the arable and the subsoil layer of humus, nitrogen, and also mobile forms of phosphorus and potassium. The studied soils are carbonate.

According to the results of field experiments conducted on typical irrigated soils, the concentration of soil solution changes during the growing season. The concentration was higher at the beginning of the growing season.

Depending on the composition of the soil solution, it was found that the amount of nutrients in the organs of cotton, in particular the amount of phosphorus, was high in the buds and leaves of cotton. It was noted that the amount of phosphorus contained in cotton depends on the ratio of nutrients in the soil solution. In the variant where the ratio of nitrogen and phosphorus is 1: 0,7, the amount of phosphorus in cotton is less, and in the variant with a ratio of 1:1 it is relatively larger. The greatest amount of potassium during the budding of the growing season, since nitrogen and phosphorus, was observed in the leaves and buds of cotton. Their number in the stem and roots of the plant is relatively small.

In the final phase of cotton growth, that is, at the end of the growing season, the amount of nutrients in the organs of the plant was closely varied depending on the concentration of soil solution

On unfertilized and mini-fertilized versions of the experiment, the buds ripen relatively faster. With an increase in fertilizer norms, the concentration of soil solution increases, which increases the yield of the crop, however, ripening is late. For example, in an unfertilized version, 50% of the cotton crop was harvested at the first harvest. On fertilized options, cotton harvested in the first crop is 10% less.

The lowest cotton yield was obtained in the variant with a low concentration of soil solution. The yield in this embodiment is 36,33 kg /ga when using fertilizer in the norm of N_{250} P_{175} K_{125} per hectare. When fertilizer rates increased to N_{300} P_{210} K_{150}, the concentration of the solution increased and the yield increased to 40,21 c/ga, that is 22,41 c/ga higher than control.

REFERENCES

1. Arne Verstraeten, Johan Neirynck, Gerrit Genouw , Nathalie Cools, Peter Roskams, Maarten Hens. Impact of declining atmospheric deposition on forest soil solution chemistry in Flanders, Belgium. Atmospheric Environment Volume 62, December 2012, Pages 50-63.
2. Asgeir Rosseb Almas, Hilmar Thor Sævarsson, Tore Krogstad. The partitioning of P in soil determines the fluxes and deliveries of labile P in soil solution. Geoderma Volume 306, 15 November 2017, Pages 135-143.
3. Bonito D. M. Trace Elements in Soil Pore Water: A Comparison of Sampling Methods. PhD thesis, University of Nottingham. 2005. 299 p.
4. Essington M.E. Soil and water Chemistry. An integrative approach.

CRC press. Boca Raton. London. NY. Washington. 2004. 534 p.
5. Francisco Javier Cabrera Corral, Santiago Bonachela Castano, María Dolores Fernandez Fernandez, Maria Rosa Granados Garcia, Juan Carlos Lopez Hernandez. Lysimetry methods for monitoring soil solution electrical conductivity and nutrient concentration in greenhouse tomato crops. Agricultural Water Management.Volume 178, December 2016, Pages 171-179.
6. Guidelines for conducting chemical and agrophysical analysis of soils during land monitoring. Tashkent, 2004. 260 p.
7. Jose Bernardo Moraes Borin, Felipe de Campos Carmona, Ibanor Anghinoni, Amanda Posselt Martins, Isadora Rodrigues Jaeger, Elio Marcolin, Gustavo Cantori Hernandes, Estefânia Silva Camargo. Soil solution chemical attributes, rice response and water use efficiency under different flood irrigation management methods. Agricultural Water Management. Volume 176, October 2016, Pages 9-17.
8. Kasper Reitzel, Benjamin L.Turner. Quantification of pyrophosphate in soil solution by pyrophosphatase hydrolysis. Soil Biology and Biochemistry. Volume 74, July 2014, Pages 95-97.
9. Malinina M.S., Motuzova T.V. Methods of obtaining soil solutions in soil-chemical monitoring. In Sat: Physical and Chemical Methods of Soil Research. M. Moscow State University, 1991, Pages 101-130.
10. Ricardo Perobelli Borba, Victor Sanches Ribeirinho, Otávio Antoniode Camargo, Cristiano Albertode Andrade, Carmen Silvia Kira, Aline Reneé Coscione. Ion leaching and soil solution acidification in a vadose zone under soil treated with sewage sludge for agriculture. Chemosphere. Volume 192, February 2018, Pages 81-89.
11. Skrynnikova I.N. Methods for studying the chemical composition of the liquid phase of soils. In Sat: Methods of stationary soil study. M., "Science", 2011. 211 p.
12. Yao Yu Yanan Wan, Aboubacar Younoussa Camara, Huafen Li. Effects of the addition and aging of humic acid-based amendments on the solubility of Cd in soil solution and its accumulation in rice. Chemosphere Volume 196, April 2018, Pages 303-310.
13. Yusuke Unno, Hirofumi Tsukada, Akira Takeda, Yuichi Takaku, Shun'ichi Hisamatsu. Soil-soil solution distribution coefficient of soil organic matter is a key factor for that of radioiodide in surface and subsurface soils. Journal of Environmental Radioactivity. Volumes 169–170, April 2017, Pages 131-136.
14. Zong-Ling, Renab Marie, N.Bravind Rob, N.J.Comanse, Jun Daib, Jean-Marie Garnierc, Yann Sivrya, Emmanue Doelschf, Angela Straathofe Marc, F.Benedettia. Effect of dissolved organic matter composition on metal speciation in soil solutions. Chemical Geology. Volume 398, 26 March 2015, Pages 61-69.

ISSN: 2181-1253 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

GYPSIFEROUS SOILS OF JIZZAKH STEPPE AND THEIR BIOLOGICAL ACTIVITY

Makhkamova D.Yu.[1]

[1]National University of Uzbekistan named after Mirzo Ulugbek, 100174, 4 str. University, Tashkent, Uzbekistan.

Abstract. In the article materials are presented on the investigations of alterations' regularities in the quantity and distribution of physiological groups of microorganisms (bacteria, fungi, actinomycetes, nitrogen fixers, nitrifiers, denitrifiers, aerobic cellulose decomposing bacteria, butyric acid bacteria) in gypsum soils. Determination of the influence of gypsum content and degree of salinization on enzymatic activity (catalase, peroxidase, polyphenol oxidase) and "soil respiration", as well as on their alterations over the seasons of year; indicators of biological activity (BA), total relative biological activity (TBA) of soils, indicators on soil degradation have been developed.

Keywords: gypsiferous soils, biological activity, respiration, morphogenetic, agrochemical, chemical and general physical properties of soils

Introduction

At the present time, investigations are conducted in the world: on determination of genesis (origin) and elicitation the properties of gypsiferous soils, on research of alterations in soil cover during irrigation, on elimination of negative impacts on the soil, identification of the factors causing soil gipsation, on development of technologies to reduce the effects on growth and development agricultural crops taking into account soil gipsation. However, scientific investigations on the enzymatic activity, "soil respiration" properties, humus amount, and salinity level of gypsiferous soils, the dynamics of changes over the seasons of year, soil indicators of degradation, biological activity indicators (BA), and the determination of the correlation between the properties of gypsum soils territories were not adequately performed.

Methods and materials

Soil sampling was selected by genetic horizons, observations and laboratory analyzes of soils were carried out on the basis of methodological guidelines, such as "Methods of agrochemical, agrophysical and microbiological research in irrigated soils of cotton areas", methods of E.V. Arinushkina and methods of research of physical properties of soils and grounds of A.F.Vadyunina and Z.A.Korchagina.

Agrochemical and physical properties of soils of the investigated object are determined under laboratory conditions by the following methods: humus - by Tyurin method; gross nitrogen, phosphorus and potassium - according to

Gritsenko, Maltseva, Smith; mobile phosphorus and potassium - according to Machigin, Protasov; CO_2 carbonates - by acidimetric method; gypsum SO_4 - in a salt extract; water-soluble salts - by method of water extraction according to Machigin; available forms of zinc, copper and manganese - according to Kruglova method; mechanical structure with treatment by GMP - according to Bratcheva; specific gravity - by pycnometric method; volumetric weight - Kaczynski's cylinder; porosity - by calculation.

Soil microflora was determined by following methods: total quantity of microorganisms that assimilate organic forms of nitrogen (ammonificators) - on meat-peptone agar (MPA), actinomycetes - on starch-ammonia agar (SAA), microscopic fungi - on Chapek's medium, nitrogen-fixers - on liquid Ashby medium, nitrifying agents - on Vinogradsky liquid medium, denitrifiers - on Giltay medium, aerobic cellulose-destroying microorganisms - on Hutchinson-Clayton liquid medium, butyric acid bacteria - on Rushman liquid medium. Data on the accounting of microorganisms were processed according to McCredy table.

Soil respiration intensity - according to Shtatnov method in Koleshko modification. Soil enzymes activity was determined by the methods of soil enzymology described by F.Kh. Khaziyev [1972]: catalase by the gasometric method according to Kruglov and Paromenskaya, peroxidase and polyphenol oxidase - according to Karagina and Mikhailovskaya. Mathematical and statistical analysis of research results was performed by B. A. Dospekhov method.

Results and discussing

According to morphological indicators, soils of the investigated areas are distinguished by the presence of the following main morphological properties: relatively weak humus layer, the presence of a sod layer in the soil section of virgin soils on gypsum content and salinity, CO_2 on the presence of carbonates throughout the soil profile, distinct development of microaggregates and soil compaction down by profile.

At determination of salinization type and degree, content of easily soluble salts in their composition was taken into account. Depending on the quantity and distribution of salts along the profile, the following soils were identified: non-saline, weak, medium, strongly saline and salt marshes. The chlorine content in the soils is a small amount and is 0,003-0,056%, in highly saline horizons its amount reaches 0,203-0,262%. In most cases, the type of salinization is sulphate, in places it is chloride-sulphate. According to recalculation on the basis of $CaSO_4$* $2H_2O$ in the soil composition, the amount of SO_4 gypsum varies from 10-17% to 37-41%.

According to the investigations results of general physical properties of soils, low amount of the volumetric mass, relatively high specific gravity, and the correspondingly high amount of porosity express a homogeneous characteristic of sierozem soils in the upper zoning in terms of mechanical composition. Relatively high volume mass of soils formed on layered proluvial horizons was noted in soil horizons with maximum gypsum content**.**

Activity of studied enzymes in all soil types decreases down the profile. According to the results of research of the seasonal dynamics of enzymatic activity of Jizzakh steppe soils, it follows that the hydrothermal conditions in gypsum soils are of great importance in the biochemical processes occurring in the soils. Relatively high activity of enzymes was noted in the upper humus and non-gypsum soil horizons. In spring, a higher enzymatic activity of the soil was observed compared to autumn. In arid climatic conditions, that is, in conditions of low precipitation, there is a change in the seasonal dynamics of enzymatic activity under the influence of air and soil temperature during the summer. These

processes are interconnected, and the highest level is noted in spring, in summer there is a slight decrease, and by autumn a noticeable increase.

In the investigated soils, a decrease of respiration intensity is observed down the profile. Based on the obtained results, it can be stated that the intensity of respiration in the soil depends on soil formation processes and soil properties.

According to the results of microbiological analyzes, gypsum content in the studied soils influences on microbiological activity of salted soils.

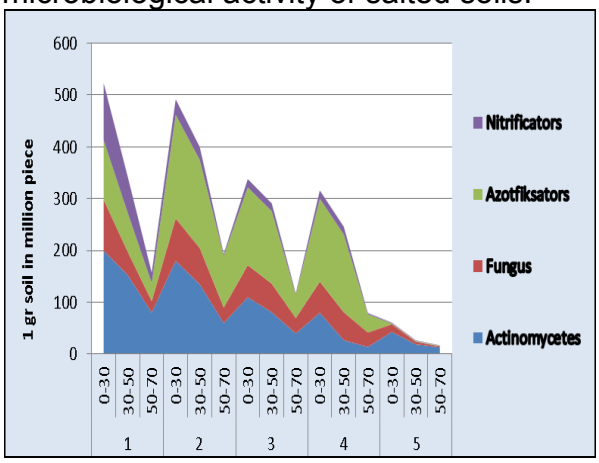


Fig. 1. Distribution of microorganisms' groups on gypsum content *(1 - gypsum content less than 2%, 2 - low gypsum content, 3- average gypsum content, 4- high gypsum content, 5- the highest content of gypsum)*

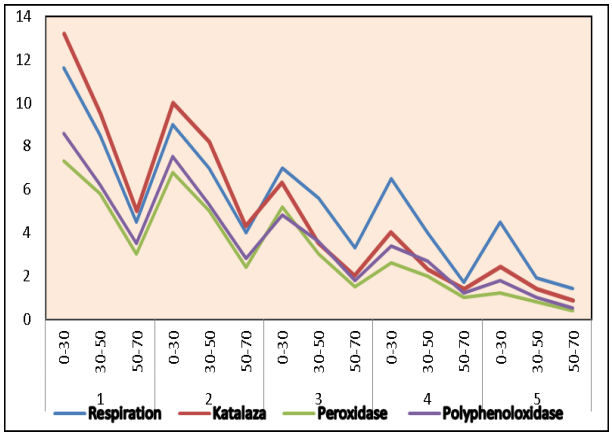


Fig. 2. Respiratory and enzymatic activity of soils according to gypsum content *(1- gypsum content less than 2%, 2- low gypsum content, 3- average gypsum content, 4- high gypsum content, 5- the highest gypsum content)*

High activity of microorganisms was noted in weakly gypsy, non-saline, typical sierozem soils, in comparison with medium and strongly gypsy, to varying degrees saline, meadow, sierozem-meadow-meadow and meadow-saline soils.

Biological and enzymatic activity of investigated soils is reduced by the content of gypsum, the highest activity is observed in soils with a gypsum content of less than 2%. An increase in the gypsum content, namely from low to medium, high and very high, is a decrease in the microbiological and enzymatic activity of the soils (Fig. 1-2).

It was assessed biological activity (BA) of gypsum soils, effect of complex-comparative analyzes and the basic properties of the soil on relative biological activity of soils (RBA) on the gypsum content were studied. Relative biological activity of soils (RBA) in the amount of gypsum varies within 80%, a decrease in the relative biological activity (RBA) is observed (100-66-44-31-12). With an increase in gypsum content in soils with a weak - medium - high - and highest content of gypsum, a decrease in biological activity is observed (Table 1).

Table 1 Readings of biological activity (BA) of gypsum soils of Jizzakh steppe

Catalase	Polyphenol oxidase	Peroxidase	Ammonifiers	Nitrificators	Fungus
Soils with a gypsum content of less than 2%					
13,2	8,6	7,3	5000	110	98
Low Gypsum Soils					
10,0	7,5	6,8	1800	30	82
Medium Gypsum Soils					
6,3	4,8	5,2	910	16	62
Soils are high in gypsum					
4,0	3,4	2,6	760	16	60
Soils with a very high content of gypsum					
2,4	1,8	1,2	250	1,5	15

Table 2 Indicators of degradation of gypsiferous soils of Jizzakh steppe

Readings	Soils not subject to degradation	Weakly degraded soils	Medium degraded soils	Highly degraded soils	Very highly degraded soils
Humus, %	>1,8	2,3	1,6	1,5	1,3
Amount of gypsum, %	>2	2-9	10-19	20-29	30-41
Groundwater salinity, g/l	2,4	8,4	12,6	16,4	25,1
Relative BA	100	82	62	60	15
On to the content of gypsum	Non gypsum	Weakly gipsy	Medium gypsum	Heavily gypsum	Very highly gypsum

Comprehensive study of BA value of gypsum soils with different

physicochemical, microbiological, and biochemical properties, as well as with an unequal soil structure, can clarify their ecological and genetic features, and can also clarify the extent of the impact of natural and environmental factors on soil fertility. Based on the results obtained, indicators of degradation for gypsum soils are recommended (table 2).

As a result of complex investigations, connection of total biological activity of soils was noted not only with the specific properties of the soil, but also the relationship with the surrounding system and processes.

At investigation of correlation between the properties of the soil in gypsum soils, a direct correlation was observed between microbiological and enzymatic activity with the content of gypsum (r = 0,70-0,90), this reflects dependence of gypsum soils on biological properties, as well as fertility and degradation processes in soils. Thus, all investigated soils are characterized by individual interconnection systems. As a result, it is possible to determine some general regularity of region's soils.

Conclusion

Among the investigated groups of microorganisms, it is observed predominance of ammonifiers, actinomycetes occupy the second place in the number, and next place is occupied by nitrogen-containing and denitrifying bacteria, as well as cellulose-destroying microorganisms and fungi. It was noted low content of butyric and nitrifying bacteria. Change in the number of microorganisms by the seasons of the year, the subtypes of the soil, and the depth of the soil horizon can be explained by a lack of moisture and a weak accumulation of organic matter along the soil profile. In soil types, a decrease in biological activity is observed as the gypsum content increases.

In the studied soils, various effects of soil gypsum content, degree of salinization on the number of physiological groups of microorganisms, enzyme activity and carbon dioxide (CO_2) emission were determined. There was a decrease of biological activity (BA) of soils according to the degree of gypsation: non-gypsy soils — weakly gypsy soils — medium-gypsum soils — strongly gypsum soils — very strongly gypsy soils.

The correlation between the number of microorganisms, enzyme activity, the content of humus and nutrients (r = 0,70-0,90) in soils can be used as a test to determine the amount of gypsum and manage it.

REFERENCES

1. Aristovskaya T.V. Mikroorganizmy kak osobyy komponent ekosistemy //Truda KH Mezhd.kong.pochvovedov. M.,1974.-T.3. -S.15-21.
2. Akhmedov A.U., Namozov KH.K. – Zasolennyye, gipsonosnyye pochvy Dzhizakskoy stepi. Sb. materialov «Problemy ekologii Uzbekistana». g. Karshi, 1994. -S.74-81.
3. Verba M.P., Devyatykh V.A. – Izmeneniye mikromorfologicheskogo stroyeniya serozemno-lugovoy gipsonosnoy pochvy pri promyvke (model'nyy opyt). ZH.: «Pochvovedeniye», 1992g., №8,-88 s.
4. Garbuz S.A., Yaroslavtseva N.V., Kholodov V.A. Fermentativnaya aktivnost' vnutri i snaruzhi vodoustoychivykh agregatov v pochvakh raznogo vida ispol'zovaniya. ZH: Pochvovedeniya № 3. 2016. -S. 398-407.
5. Gafurova L., Akhmedov A., Yamnova I., Ramazanov A. – Osobennosti zasoleniya gipsirovannykh pochv podgornoy ravniny Golodnoy stepi. ZH.: «Vestnik agrarnoy nauki Uzbekistan», №1-2, T., 2007. -S. 24-29.
6. Golovanov D.L., Lebedeva (Verba) M.P., Dorokhova M.F., Slobodkin A.I. Mikromorfologicheskaya i mikrobiologicheskaya kharakteristika elementarnykh

pochvoobrazovatel'nykh protsessov v pustynnykh pochvakh Mongolii //Pochvovedeniye. 2005. №12. -S. 1450-1460.
7. Dadenko Ye.V. i dr. // Izmeneniye fermentativnoy aktivnosti pri khranenii pochvennykh obraztsov / Pochvovedeniye. 2009. - № 12. -S. 1481 -1486.
8. Yegorova Ye.V. Fermentativnaya aktivnost' dernovo-podzolistoy pochvy pri zagryaznenii yeye svintsom i kadmiyem // Plodorodiye. 2008. - № 4.- 44 s.
9. Zvyagintsev D.G., Zenova G.M., Oborotov G.V. Mitselial'nyye bakterii zasolennykh pochv. ZH:Pochovedeniye №10. 2008. - S.1250-1257.
10. Isakov V.YU. Gipsonosnyye, arzykovyye i shokhovyye pochvy Ferganskoy doliny, usloviya ikh formirovaniya i puti ratsional'nogo ispol'zovaniya: Aftoref. diss…. dok.biol.nauk.-T.1993. -40 s.
11. Kovda V.A. Problemy opustynivaniya i zasoleniya pochv aridnykh regionov mira. M.: Nauka. 2008. -415 s.
12. Kozlov K.A. Fermentativnaya aktivnost' pochv kak pokazatel' biologicheskoy aktivnosti. Novosibirsk, 1964. -96 s.
13. Kuziyev R., Akhmedov A., Gafurova L, Yamnova I., Turapov I., Bairov A. – Sovremennoye sostoyaniye oroshayemykh pochv Golodnoy stepi i ikh meliorativnaya otsenka. ZH.: «Vestnik agrarnoy nauki Uzbekistan», №4, T., 2006. -S. 35-44.
14. Minashina N.G., Shishov L.L., Gavrilova G.L. Gazhevyye solonchaki yugo-zapadnoy chasti Golodnoy stepi, ikh pochvennyye rastvory i genezis. ZH.: Pochvovedeniye.- M., 2004. № 5. -S.11-23.
15. Muradova Z.M. – Karbonaty i gips v trudnomelioriruyemykh pochvakh sazovoy zony yuzhnoy chasti Golodnoy stepi. Byull. ins-ta Pochvovedeniya im. V.V.Dokuchayeva, vyp. 34, M., 1984. - S.157-174.
16. Pankov M.A. - Protsessy zasoleniya i rassoleniya pochv Golodnoy stepi. Izd-vo MSKH UzSSR, T., 1962. -344 s.
17. Yamnova I.A, Golovanov D.L. – Morfotipy gipsovykh gorizontov na razlichnykh iyerarkhicheskikh urovnyakh organizatsii pochvennogo pokrova aridnykh territoriy (Dzhizak, Uzbekistan). Materialy V s"yezda Vserossiyskogo obshchestva pochvovedov im. V.V.Dokuchayeva, Rostov-na-Donu, 18-23 avgust, 2008.- 258 s.
18. Verba M.P, Yamnova I.A. Gypsum neoformations in nonirrigated and irrigated soils of the serozem zone. Proceed. Of the Int. Work. Meet. On Soil Micromorf., Moscow, Russia, jul. 8-13, 1997.- P. 187-195.

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

THE PLACE AND ROLE OF WOMEN IN SOCIETY IN THE PRE-ISLAMIC PERIOD

Djuraeva N.D.[1]

Uzbek State University of World Languages, Uzbekistan.

Abstract. The article describes the social status of women in the history of Uzbekistan from ancient times to the introduction of Islam. The article also provides information on early medieval social relations, the role and status of women in the family and society, family relationships and family traditions.

Keywords: history of Uzbekistan, women, social status, history, humanity, stage of development, sources, historical processes, seed period, civilization, government, matriarchy, avesto, patriarchy, medieval, islam, religious values, women's dignity, oriental value, woman respect.

Introduction

The issue of women is a set of social issues, which include women's status in the family and society, protection of their legitimate interests, employment, maternity and childhood.

In the years of independence, the role of women in society has become one of the priorities and goals of state policy, as well as protection of their rights and interests, and improvement of working and living conditions.

Methods and materials

The article is published on the basis of generally accepted historical and sociological methods - historical, comparative-logical, analytical, sequence, objectivity.

Results and discussions

The women' s issues are a set of social tasks that depicts questions including the position of women in family and society, the protection of legitimate interests. employment and defense of motherhood and childhood.

Since the formation of the human society, the women's issues have concerned both the great geniuses of mankind and ordinary people, especially women's significance in relationships, their role in family and social life. and the pivotal obligation Of bringing up children. At the current time, the issue Of raising the social activity of women is a sophisticated and delicate matter. According to the Statistics, about 50% of the population is women which were called ‘Zaifa', 'Ojiza' because oftheir inherent nature. However, women's active participation is needed both in terms of spiritual, legal and financial spheres of social life as welfare and prosperity of society are determined by the attitude of women to the preservation of the following nation.

Within the years of independence the role of women in has changed in different aspects such as raising their dignity, protecting their interests, improving their employment and working conditions are

becoming one of the priorities of the state policy.

At the new stage of Uzbekistan's development, comprehensive retorms have been carried out in the socio-economic and cultural-enlightenment branches of society; the activity of women is increasing in the process of qualitative changes and resolutions of existing problems year by year.

As our president Sh. Mirziyoyev pointed out 'Currently, 45 % of workers and employees of various sectors of the economy are women, including 1400 are leaders in state and public organizations, 23 ofthem are senators, 48 are members of the Legislative Chamber ofthe Oliy Majlis, 1075 are deputies ofthe local councils.

In modern society, the process of self-identification of women has changed and there has been an increase in their social status, culture and education.

This process has been provoked by the fact that many researchers have attracted the attention ofwomen, and that the problem of women's issues is not accidental, especially as it is a global social event and the persistent end to women's the most active participation in society, raises their status and creates a wide range of activities. As a result, they have the opportunity to fully demonstrate their talent and abilities, even though they have econohave independence. The world has become fully aware that the society can have a perfect direction in the development of the society only in the case or their active participation in the management of science, technology and management in almost all fields of the process. Therefore, it is important to address the role and place of women in modern societies where it is important to address the challenges of today's globalization and civilization, as well as in the future, where women cannot progress without the participation of women. Indeed, as the wise men have said, men are the nation's today, women are its future. Now many human development experts believe that the historical path and progress that has been eradicated by humanity is not fully understood by studying the role of women in all aspects of human society. Note, for example, the following by Jimelle Bok, a well-known women researcher: 'In the past, women's experiences, activities, and lifestyle have not been neglected because they Seem to have no historic value'. However. women should be considered as historically as men's history, as it is only about half the human race. 'Another prominent researcher in the history of women, Joanne Kellin, says that this is not about women's history, butnot the women of history, but the history of women, but also the history of women as women all over the world'.

It is well known from history that women have a role in all stages of human development. The sources provide a wealth of information about men's active participation in different historical processes, including men. Particularly, the social status ofthe Central Asian women in ancient times and their way of life are reflected in the ancient Greek historian Gerodot's 'History", Srtrabon's 'Geography', Abu Rahyon Beruniy's “Ancient Holocausts” . Mahmud Qashqariy's 'Devonu lugotit-Turk' the ancient Turkic sources found in XVII century in Siberia, Mongolia, Altay and Central Asia, in the Rumanik or Kukturk inscriptions, were preserved in the samples of folklore. In Avesto, thoughts about the lifestyle Of our ancestors, the state, the family, the woman and the child. It is well known that Women are the founders of culture and civilization. It is enough to admit that the millennial history of humanity is associated with the women's matriarch, and that the greatest achievement in the development of the farm is the transition to a cultivated farm, and the types of work and the arts are discovered by women. In short, the development of society during the primitive seed-age isassociated with more women's activities. With its great creation and dedication, women have laid the foundation for contemporary civilization. liven in the matriarchal era, the seed began with the name of the woman, and the children were identified by the mothers. The women, as the owner of the house, furnace and holy fire, played important role; in household and child rearing, firefighting.

cooking, sheltering, labor protection, sheltering. Therefore, in the early period of the formation of society in the Central Asian region, women were respected at the level of kings. During this period, Abu Rayhon Beruniy acquired valuable information in his monograph 'Ancient Monuments' about women's high standing. That is, the celebration of the honour of women in ancient times indicates that it was a day of 'disappointment' (5 days in February). The expression 'does not look foolish' refers to the meaning of the 'woman' and 'the mine' and the name of the angel, who is the giver of beautiful, honorable. good deeds, and the lover of love to her husband, Beruniy says, 'In the past, this day was specific to the life of women, and the man would spend for them'. In the patriarchal era, as a result of the state's emergence of a male-dominated position in social life, this celebration has been abolished, but women have maintained their superiors in the family. One of the main reasons is that the peoples of the Central Asian region are busy with farming, livestock breeding, and theimportance of women's labor in this process. In the primitive era, such works as land cultivation, harvesting were largely manually carried out. requiring many man-made labor. That is why Women have been working together in the field of farming business, without breaking into the housework. In the patriarchal era, women's role in the development of society and the lack of attention to them can be understood through the material found in ancient graves as a result of archaeological excavations For example, the fact that most of the Bronze Age Sopollitepa and Jarqutan monuments are found near women is evidence of our idea. Sopollitepa has 150 sepulchres, including ceramic bottles, bronze, silver, gold and stones, bronze tools, about 20 pottery, vases, cakes, dates, kettles, bowls, cups and other 40 well-groomed, sieek, lightweight bottles. There are stone quarries, stealers, horses and slabs, barley, wheat and tariq grains. Studies in Sopolitepa show that people are cooking and eating clothes like silk. cotton, and boiled soup, dressed in silk and cotton. It also provides information on the divorce between men and women, and men are engaged in agriculture, cattlebreeding, ceramics, building, and women are engaged in housework and child rearing. Men were the leaders of the seeds. It can also seen in the graves found in the mausoleum of Zaamin district in the autumn of 2007-2008 period, when a woman's body was found more frequently that man's body. 45 such graveyards were discoveled in the ancient cemetery found on the northem coast of Zamonbobo Lake: a stone necklace, a golden necklace, a rug and other items from the tomb of a woman, and a small ceramic scultpture from a grave. In the graves studied in the Andronovo culture monuments of the Dasht Bronze Age and the Shirinsoy Mazarhurgang II-III centuries AD near Bekabad, it was discovered that material resou:ees were found in the graves buried by a woman. Also. the statues of the woman in the age of a divine mother are the statues of eneolithic and bronze periods (IV-II millenius BC). 'It is not surprising that women are valued and in the ancient times' Valanskaya writes. He did not know what a slave was. As it is known, the social and ethical equality of members of the primitive community was due to the collective nature of creating and distributing material blessing. The woman had not only the same rights with males (voting or not voting in the tribal council, etc) but also the privilege of being granted due to the mother's right'. At that time it was difficult to imagine life and development without women. Bebel also gives credible evidence that women's reputation, such as their 'home manager and leadership', 'peace-building' as well as the judiciary and priesthood. Of course, these situations five a picture of the role of women in the socio-economic and cultural life of their attitude to them, This is an indication of the role and status Of society in the ancient times. where there is no written sources yet, as a woman — a symbol Of beauty and admiration, hereditary successor, heritage of the nation. It should be noted that the improvement of production facilities and the development of production relations have

changed the role of women in society and their involvement in economic relations. They denied involvement in the development of and drove them to the family circle. Women's economic activities have been the result of household activities, such as sewing, knitting, pets, sowing, harvesting and much more. The man became the principal producer and the govemor of the state. However, it is noteworthy that women have always been recognized as mothers by men. Analysis shows that in the course of a long historical development,. women have not only taken part in life, but also created a unique culture — 'women's culture'. The views of 'women's culture':

Art in family, Ihmily art;

The ability to maintain family relationships;

Experience in preserving national culture, traditions;

Public pedagogy, the tendency to follow educational and teaching methods;

Ability to develop folklore and applied arts;

Support and advocacy of humanitarian ideas and opinions. This is. of course, a sign of a particular culture that is based on women's lifestyle, their attitude to the environment. Written sources say that women were respected even before Islam, and that they had a reputation and place not only in family, but also in society. Avesto, in particular, reflects the beauty of the goddess Anahita or Nahil. the gcxldess of the nature and the wildlife of the gcxidess Nanay, the eternal and awakening, living and renewing nature of the goddess Amurdat and the idolatrous temples, with a beautiful, as illustrated by the fact that women have a special place and high Status in society. In Avesto, it is noted that the image of the woman has been 'distinguished by the fact that some elements of women's emantification have appeared' and their attitude toward their husbands. "Illat is, if a woman owns property, she has the right to used for her independent and charitable purposes, 'In Avesto, the role of women in the family, the role of women in their home and community are specifically emphasized in different ways' Particulary, in Avesto the patriarchal family is called 'dmana', the family head is called 'dmanopathy' and the housewité is called 'dmanopat', Marriage is the result of the desire of both parties, but only after that has been confirmed by parents and guardians. The family was monogamous. Dmanopathy for providing financial support to the family, and the responsibility of dealing with household duties are the respnsibility of the dmanopat. This division of labour between rocks was an important factor in the social protection and economic well-being of women. In Zoroastricity, a marriage is sealed for a lifetime; a man is not married for two or temporary marriage. A married couple who have been harshly betrayed hy a husband or a wite had been dishonoured, punished, and harmed by their spouse. In the 'Vendidod', part of the prose-specific 'Avesto', the details of the preservation of the family integrity, the marital status, the reasons and conditions for the abolition of marriage are detailed. Zaradusht says: O men and women who build a family, I tell you, each one ofyou is zealous for a good life. Earn each one of you with conduct and behavior, and that your life, and your family's life is strong, honest and productive. 'Zoroastrian' abuse of women's rights is bad, it is a sign ofignorance. As for facts that are mentioned in Avesto, as much as attention is drawn to girls' education than boys'. Parents were responsible for girls' upbringing and education at home till they got married. According to Zaratushtra's teaching, each parent should share the whole knowledge ofhis/her craft with daughters until they are 1 5 years Old. They are obliged to teach, purify and put them in the faith. Firstly daughters should make easier parents' duty secondly they should keep houses clean and ensure a family solidarity. Zoroastrism led to the same rights for both women and men. Therefore, girls just like boys fought with enemies (boys), were able to protect themselves from their opponents, ride horses, run, get over various heights, waterfalls and other physical activities. Military occupation was compulsory. Girls as well as boys having

reached the age of puberty passed special tests. As a result, girls were considered as housewives, called Kadbanu, but boys were entitled as a head of the family 'Kathudo' who were in change for taking up the herd of the shepherd, riding a horse and a camel. Related to Zaratushtrai teaching the youth had become hard-working, ready to acquire the skills and capabil ities oftheir labor and occupation.

In Avesto, Zardot's mother, Dugdova is a symbol of goodness, justice. As it is written in the source: An angelbaby, whose name was Dugdoba was born in the palace of the Spitama in the ancient Khorezm Farotush. Parents having saved her from other eyes began to grow up. As the girl got older, the light in her face was full of some power which helped her to bless the house grow. At the age of ten the girl went outside without mother's allowance and was noticed by the crowds of people, Vanity broke up among the humans.

Some ofthem said: it is an angel in the ofa human being. Other categories of people which had bad thoughts said: it is a magic creature that brings chaos to the world and tor that reason she must be stored and killed.

Her father had no clues what to do and he went to sleep. He dreamed an old man in white clothes who said to him: 'Wake up! not let your daughter die! She Will have a son who will save humanity from ignorance and lead it to happinness in the future. Fetch her to rais.

Faratush got up at midnight and went to wake up his daughter to take her to the cousin of Spitama, a close friend in ancient Urgench. 'Brother' says the father or Dugdova: 'My daughter's life is in danger. The crowd of angry people want to kill her. Adopt her as your daughter and she will bring happiness to your family' On seeing divinity on a girl's face the chairman was happy to accept her. This girl was Zardat's mother. Although it is narration, there are significant wisdom in its essence.

Firstly, In Avesto it is included that woman's dignity and protection from any kind of danger.

Secondly, the woman is a creator, the creator of kindness. Concerning the religion of Zoroastrism respect and honor of women the following admonitions are also worthy of note. Marry your daughter to a wise, understanding person who is like a fertile land, and if you sow it, you will obtain good fruit. This is a rare hook Karimov said in his interview with historians on July 7. 1998. It is a spiritual heritage that left by our ancestors who spent their lives in the midst of the river in XXX B.C. Avesto is a historical document that testifies to the fact that it is a great state, spiritually creative culture, which no one can deny. The Avesto also contains intörmation about States that have military democratic structures in the 8-7 B. C. such as Khorezm, Sogdiana and Baqtria. In the history of the state, military politics and social life, the courage of females in the socio-political relationships of Tummar (girl of the empire), Sparetra, Zarina had courage in showing their patriotism have been preserved on history pages. Paniculary, the heroic women Zarina (7th-6th BC) Sparetra (Queen of the Massagetes 570 BC, who had a worthy trace in the history of ancient Iranian lands, 520 BC). Evidently (in fact) social status of males and females were not equal at that time. Women had more rights than men. Of course, such a situation illustrates that women were treated with great care and they had a pivotal responsibility for family, child upbringing and social activity. According to the sources. women were also skilled in martial arts. Even, on the horse they were able to target an enemy in clear bow. Even heads of tribes were women. On the one hand, their vital activity asserts intolerance towards aggressive forces, on the other hand their devotion to the fate of the Motherland.

In the early medieval, or in the V-VII centuries, images Of women have come to us in the samples of artistic styles, which are closely linked to religious beliefs and imaginations. In particular, the monuments of the epic history include the ruins of Poykand, the town Varaksha in Bukhara region, the Bolaliktepa fortress located in the Angor district of Surkhandarya region and the Firqae in ancient city of Khorezm. In the 5-6 centuries widely spread etiquette and worship to the gods of fine arts. Coroplasty,

which is closely connected with religious beliefs and imagination. Eccentric statues differed by religion and in terms of clothing, ihcial features and jewelry. A great deal of contemplation and women's proud occupation and featured by the wall paintings on the Bolaliktepa Monument, Sides of the walls of the building like a magnificent palace are filled with colourful images of different shapes, reflecting human beings' sights. On the mattress, the images of men and women sitting on the eastern edge of the knee are usually remarkable. Especially women's clothes, in the right hand of whom a glass and in the left hand a mirror, draw attention and they are quite extravagant. The long sash with wide-coloured covering on the inner trousers were pushed 10 the shoulders. Brilliant jewelry in their ears, necks and fingers is a sign of women's high standing. The appearance ofwomen on the walls of the Bolaliktel_u castle reminds the ladies palace that were amazed by the Buddhist monk who was in the sixth century under the ruler of the Eftals. According to his words, at that time fetal queens were wearing very expensive special long dresses. In the remains ofthe wall paintings found in Afrosiab, it is possible to see the high status of women in society. The queen sit on the white elephant on the chest holding the jury at it. Three women: one was on the porch second was on the wing and the last was on the straw, followed by the queen. Females were accompanied by two males on the camels. In the Middle ages, women especially had their status in swiety and have been involved in solving various legal issues. Ancient Turkic people considered women as the greatest creator of nature. Mother Earth as for them, all the wounds in nature were related to the earth and the woman. Additionally, regarding to their ancient customs in the Turkish jurisprudence the woman Was primarily mother. Even the most prominent Of that time were xotun. Arab historian At-Tabari wrote: All things be achieved through women in the Turkish sovereignty. Women have full legal succession law harshly protected them. The protection of women's rights in social life has become evident in the Turkish traditions and syllabic dcnuments. According to the documents, the rights of spouses are derived from the marriage contact. There were a plenvy of Wives (polygamies) in the Turkic Khanate and the Sogd State, which is part of it. Marriage consists of three forms: a full-fledged marriage (with more rights to women), a guardianship marriage (a marital partner who has given her a marriage, auxiliary marriage (includes full-fledged marriages only if It is allowed by the woman). Fundumentally, it is given from the first medieval source, which was found in Xalai Mid, contained marriage contact with a turk called Duttong (nickname was Chata) and a turk name was Utegin. As was mentioned there if a man without the first wive's permission got married twice. He was obliged to pay 30 dinars for the first wife, moreover if Utegin didn't care about Dudguneha at all and let others pick on her, then he had to swear an oath by the Mitra for paying 100 dinars of pure silver, This source gives a brilliant explanation of the strickt protection ifwomen's right 1500 years ago. An image of women in the coins of Kushan Bank, Turkic Kingdoms indicates their social status. It was not allowed for a widowed woman in the nomadic herd to leave her family, (siblings). She had to marry to his husband's brother. This tradition has been used to defend widows' rights, pretend her from humiliating in the hands of others, preservation of her family's belongings and position, the setting up of auxiliary farming and native's future. These traditions have been on from generation to generation as a spiritual value after adoption Of Islam.

Conclusions

In order to raise the status of women in society, it is expedient to carry out the historical roots of the aspects of social support that affect them in our national mentality, along with Islamic values. Therefore, one of the main criteria for building a democratic, civil society in Islamic teaching is the formation of women in harmony with development through the

study, analysis and implementation of the ideas of social protection.

In general, the traditions and customs of the peoples of the East formed over the centuries are directly related to and based on Islam. Islam has influenced and continues to influence the social, family and personal lives of people spiritually. Islam is in harmony with the universally recognized values of justice, freedom, independence, and humanity.

References

1. Speech of the President of the Republic of Uzbekistan Shavkat Mirziyoev at the twentieth plenary session of the Senate of the Oliy Majlis // http://uza.uz/oz/documents/.
2. Abilov U. Chrestomathy on the basis of gender studies. –Toshkent: Uzbekistan, 2003. –P.368.
3. Abilov U. Chrestomathy on the basis of gender studies. –Toshkent: Uzbekistan, 2003. –P.367.
4. Speech of the President of the Republic of Uzbekistan Shavkat Mirziyoev at the twentieth plenary session of the Senate of the Oliy Majlis // http://uza.uz/oz/documents/.
5. Juraeva N. The role of women in the socio-economic and cultural life of Uzbekistan (20-30 years of the 20th century). 07.00.02 - Dissertation for the degree of candidate of historical sciences in the history of Uzbekistan. - Tashkent, 2004.)
6. Juraeva N. Attitudes towards women in Uzbekistan (on the example of 20-80s of the 20th century). Textbook - Tashkent: Publishing House of the National Library of Uzbekistan named after Alisher Navoi, 2013. – P.8-9.
7. Djuraeva N. Social status of women in the history of Uzbekistan.// Journal of look to the past. ISSN 2181-9599 DoiJournal 10.26739/2181-9599.¹1 (2019). –P. 22-32.
8. Djuraeva N. Examination of issues of attitude to the place and role of women of Uzbekistan in society in the XX century/ International Journal of Recent Technology and Engineering, 2019/8(2 Special Issue 11), 3764–3768. https://doi.org/10.35940/ijrte.B1488.0982S1119
9. Djuraeva N. (2020). Study of issues of relationship of the soviet state to women in western historiography. International Journal of Advanced Science and Technology, 29(05), 1387 - 1391. Retrieved from http://sersc.org/journals/index.php/IJAST/article/view/9937

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

SELECTION OF EARLY BREAD WHEAT LINES BASED ON STUDYING THE TIME OF DEVELOPMENT

Dilmurodov Sh.D.[1], Kayumov N.Sh.[2], Boysunov N.B.[3]

[1]Candidate of Agricultural Sciences, Senior scientific researcher [2,3]Junior scientific researchers.
Kashkadarya Branch of Institute for Grain and Leguminous Crops, Karshi city, Kashkadarya region, Uzbekistan.

Abstract. One of the main tasks of the breeding direction is the study of the world's collection varieties and lines of wheat, their localization, as well as the study of local hybrids obtained on the basis of synthetic breeding, a comprehensive study of lines, testing and introduction of highly effective lines from standard varieties. A number of problems in agriculture can be solved by creating early maturing varieties.

Key words. bread wheat, phases of development, early maturity, variety, lines.

Introduction

When creating the best varieties of bread wheat on irrigated lands, the early maturing properties of the variety, the composition of the grain and its quality indicators, the external environment and agronomic measures have a strong influence [3, 4, 7]. It is important to study the valuable properties of the variety in relation to the characteristics of early maturity in various soil and climatic conditions, grain yield [2, 5]. Early maturing varieties should be used in grain growing to increase yields and grain quality [6, 8, 9].

On the irrigated areas, bread wheat varieties were planted on an area of 10 m2 in a control nursery of the lines, selected from seedlings of two-year selection, valuable economic characteristics and features were evaluated.

The main goal of the study of common wheat lines in the control nursery is the selection of early maturing, productive, high-quality lines adapted to irrigated areas, as part of the creation of new varieties of common wheat and transfer to agroecological variety testing, competitive variety testing.

Material and methods

In the course of field experiments, 23 lines of common wheat were selected and 2 varieties were selected as standard. The standard varieties are Gozgan and Grom, widely grown in the southern regions of the Republic of Uzbekistan.

Phenological monitoring was carried out during the growing season. The obtained results were summarized, statistical analysis and sampling were carried out [1].

In the experiment, varieties and lines were planted in 3 replications, the calculated area of each plot was 10 m2.

Phenological observations have shown that the onset of each phase occurred in 10% of plants and 75% of all plants.

* Corresponding author: s.dilmurodov@mail.ru , urugchilik@mail.ru

Determination of the height of each cultivar and bed plant was measured from 10 full plant heights before harvest. To determine the yield, each plot was harvested on a selection harvester and the yield was determined.

Table 1. Growing stages of varieties and lines (Karshi, 2019).

№	Variety name	Germina-tion, Date	Tillering, Date	Shooting, Date	Heading, Date	Days to Heading Date	Maturity, Date	Days to Maturity Date
1	Gozgon (check)	Oct31	Nov25	Feb19	Apr 9	160	June 2	215
2	Grom (check)	Oct31	26 nov	Feb 24	Apr 8	160	May 30	211
3	KRBW18-10	Oct 30	Nov25	Feb 7	Apr 9	162	May 29	211
4	KRBW18-11	Oct 31	Nov25	Feb 21	Apr 11	162	May 30	211
5	KRBW18-12	Oct 31	Nov25	Feb 18	Apr 10	161	May 31	213
6	KRBW18-13	Oct 30	Nov25	Feb14	Apr 10	162	June 1	213
7	KRBW18-14	Oct 30	Nov25	Jan 29	Apr 6	158	May 30	212
8	KRBW18-15	Oct 30	Nov25	Jan 30	Apr 7	159	May 29	210
9	KRBW18-16	Oct 30	Nov25	Feb 3	Apr 7	159	June 2	215
10	KRBW18-17	Oct 30	Nov25	Feb16	Apr 9	161	May 31	213
11	KRBW18-18	Oct31	Nov25	Feb 9	Apr 7	158	28 May	210
12	KRBW18-19	Oct 30	Nov25	Jan 28	Apr 7	159	May 27	209
13	KRBW18-20	Oct 30	Nov25	Feb16	Apr 4	156	May 27	209
14	KRBW18-21	Oct 30	Nov25	Jan 19	Apr5	157	May 30	212
15	KRBW18-22	Oct 30	Nov25	Feb7	Apr 6	158	May 30	212
16	KRBW18-23	Oct 30	Nov25	Feb2	Apr 7	159	May28	210
17	KRBW18-24	Oct31	Nov25	Jan 15	Apr 6	157	May28	210
18	KRBW18-25	Oct 30	Nov25	Jan 11	Apr5	157	May 29	211
19	KRBW18-26	Oct31	Nov25	Feb18	Apr 10	161	June 1	213
20	KRBW18-27	Oct 30	Nov25	Feb14	Apr 6	157	May 27	208
21	KRBW18-28	Oct 30	Nov25	Jan 26	Apr 7	159	June 5	218
22	KRBW18-29	Oct 30	Nov25	Jan23	Apr 2	153	May 30	212
23	KRBW18-30	Oct 30	Nov25	Feb15	Apr 6	157	May 30	212
24	KRBW18-31	Oct 30	Nov25	Jan 26	Apr 1	153	May26	208
25	KRBW18-32	Oct 30	Nov25	Jan 20	Apr 3	155	May28	210
	Mean	Oct 30	Nov25	Feb 5	Apr 7	**158**	May 30	**211**
	Maximum	Oct 31	Nov26	Feb 24	Apr11	**162**	June 5	**218**
	Minimum	Oct 30	Nov25	Jan 11	Apr 1	**153**	May26	**208**
	LSD 0.05					**3.4**		**3.1**
	LSD 0.05 (%)					**2.15**		**1.47**
	CV (%)					**1.3**		**0.9**

Results

Planting of varieties and lines was carried out on October 22, which is the optimal time for the southern regions. During the study, the developmental phases of the variety and the lines were recorded in five phases. It was noted that the rapid and complete germination of seeds of varieties and lines in the optimal period largely depends on the germination energy of varieties and air temperature, and the germination period was from 30 to 31 October. It was found that the sowing-germination period of the varieties ranged from 8 to 9 days. In conditions of sufficient moisture, the seeds of varieties need a temperature of 130-140 ° C for full germination.

Was found that the transition of the studied varieties and lines to the

* Corresponding author: s.dilmurodov@mail.ru , urugchilik@mail.ru

accumulation phase took place on November 25-26. One of the main indicators is the short duration of the development phases of varieties and lines, that is, early ripening. In irrigated areas, the root system of varieties and lines is highly developed, and the ability to use groundwater also indicates its drought resistance.

Many scientists have noted that there are also strong positive correlations between biomass and yield of varieties that produce high levels of green biomass in the short term.

According to the results obtained, the complete transition of varieties and lines into the shooting phase was observed from January 11 to February 24. According to the biological characteristics of the variety and the lines, it was noted that in the winter type lines this period covers a long period. It was noted that the period from the accumulation phase to the tube phase ranged from 39 to 95 days. This period turned out to be short-lived in the lines of an arbitrary nature, while it turned out to be long-lived in the lines of biological fall.

It was found that the transition of varieties and lines to the heading phase took place from March 30 to April 15. The transition of the Gozgan variety to the selection phase occurred on April 9, while 17 lines were harvested earlier than the standard variety.

The days to heading date was 152–162 days, while the standard varieties Gozgan and Grom were 160 days.

It was noted that the transition of varieties and lines to the phase of full maturation took place from May 26 to June 5. It was noted that the template variety Gozgan entered the full maturity phase on June 2, and the Grom variety - on May 30. This standard cultivar was found to have 11 early-maturing lines, 11 late-maturing lines and 1 late-ripening lines at the same time as the standard cultivars.

It was observed that the growing season for varieties and lines was 208-218 days.

In conclusion, it should be noted that out of 25 studied varieties and lines, 11 early ripening lines were selected and used in breeding work, exceeding the standard varieties.

References

1. Доспехов Б.А., "Методика полевого опыта".//Москва.– Агропромиздат. –С. 317.

2. Дилмуродов Ш.Д. Подбор исходного материала для селекции пшеницы озимой мягкой для условий Узбекистана на основе изучения хозяйственно ценных характеристик //Аграрная наука. – 2018. – №. 2. – С. 58-61.

3. Дилмуродов Ш.Д., Жабаров Ф.О. Селекция высокоурожайных линий озимой твёрдой пшеницы с высоким качеством зерна //Молодой ученый. – 2019. – №. 31. – С. 34-38.

4. Аманов О.А., Рахимов М.А. Ценные хозяйственные признаки образцов озимой мягкой пшеницы //Аграрная наука. – 2016. – №. 5. – С. 17-18.

5. Абдуазимов А.М. Влияние внесений азотных удобрений различными методами на рост и развитие яровой пшеницы //Инновационная наука. – 2019. – №. 4.

6. Жураев Д.Т. и др. Влияние суховеев, наблюдаемых в южных регионах Республики Узбекистан, на продуктивные элементы мягкой пшеницы //Путь науки. – 2017. – №. 2. – С. 84-92.

7. Дилмуродов Ш.Д., Бойсунов Н.Б. Селекция местных гибридных линий мягкой пшеницы на юге Республики Узбекистан //Сборник материалов. – 2018. – С. 113-119.

8. Мейлиев Т.Х., Дилмуродов Ш.Д. Рост и развитие, урожайность и устойчивость к желтой ржавчине сортов в питомнике отбора продуктивных сортов //Приоритетные направления развития науки и образования. – 2019. – С. 130-133.

9. Хазраткулова Ш.У., Дилмуродов Ш.Д. Взаимосвязь погодно-климатических условий с продуктивностью и качеством зерна сортов озимой пшеницы //фундаментальные основы инновационного развития науки и образования. – 2019. – С. 59-61.

* Corresponding author: s.dilmurodov@mail.ru , urugchilik@mail.ru

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

Особенности применения системы цифровизации в государственном управлении

Аманиязова Света Байниязовна[1].
[1]Преподаватель кафедры Правоведения Каракалпакского государственного университета.

Аннотация. В данной статье освещается специфика использования цифровизации в государственном управлении, роль цифровизации в обеспечении открытости и прозрачности государственного управления в Республике Узбекистан

Ключевые слова. Электронное правительство, цифровизация, информационные технологии, цифровое право, услуги электронного правительства.

Можно заметить, что любые социальные отношения в обществе сегодня обновляются под влиянием информационно-коммуникационных технологий.

Быстрый рост информации, формирование больших баз данных и ресурсов, быстрое развитие цифровых технологий, расширение сфер их социального влияния и посредничества в различных сферах общественной жизни, повсеместное внедрение государственных и общественных институтов важны для развития нового современного «цифрового» общества.

Использование информационной инфраструктуры и информационно-коммуникационных технологий (ИКТ) для развития и укрепления демократических институтов, расширения участия граждан в политической и общественной жизни является сущностью электронной демократии.

Более того, сущность электронной демократии - это система отношений между правительством, гражданами и организациями, основанная на электронном правительстве, другими словами, информационные и коммуникационные каналы, связанные с внедрением электронной демократии.

Следует отметить, что в Послании Президента Республики Узбекистан Ш.М.Мирзиёева Олий Мажлису от 28 декабря 2018 года, Президент предложил ряд мнений и предложений: “Нам следует разработать Национальную концепцию цифровой экономики, предусматривающую обновление всех сфер экономики на базе цифровых технологий и на этой основе внедрить программу “Цифровой Узбекистан – 2030” [1].

Можно также сказать, что в качестве продолжения работы, проводимой в нашей стране, в Послании Президента Республики Узбекистан Ш.М.Мирзиёева к Олий Мажлису 24 января 2020 года, было отмечено что: “... формирование цифровой экономики потребует соответствующей инфраструктуры, огромных средств и трудовых ресурсов» и особо подчеркнул что «…ускоренный переход на цифровую

Corresponding author: Аманиязова Света

экономику станет нашей приоритетной задачей на следующие пять лет» [2] и это означают, что система оцифровки, цифровые технологии должна эффективно использоваться не только в экономической сфере, но и во всех социальных сферах, в процессе государственного управления, в деятельности органов государственной власти.

Создание и широкое использование цифровых технологий, о которых говорил глава нашего государства, рассматривается как процесс революционных изменений в современном обществе - цифровая революция, последовательно формирующая новую социальную, экономическую, политическую и правовую реальность.

Действительно, использование цифровизации в государственном управлении - одна из самых актуальных проблем, которая требует всестороннего изучения, анализа и расширения практики государственных органов и отдельных лиц в этой системе.

По мнению Е.Г.Иншаковой, в этой связи улучшение деятельности органов государственного управления должно предусматривать:

- структурно-функциональное реформирование системы

государственного управления с целью устранения дублирования при

реализации функций властными структурами;

- демократизм в управлении, преобразование системы взглядов на функции и значение общественных институтов и передачи им властных полномочий для решения локальных задач, а также права принимать участие в выработке государственных решений;

- автоматизацию процессов государственного управления для уменьшения возможностей произвола со стороны государственных служащих, коррупции, упрочения институтов

самоуправления;

- функционирование такой системы профессионального

образования государственных служащих, при которой выпускники вузов обладали бы способностями без переподготовки и повышения квалификации исполнять свои должностные обязанности;

- введение автоматизированных информационно-аналитических систем;

- создание облика государственного служащего посредством

разработки и применения кодекса его поведения [3].

А также, по убеждению Ю.Н. Старилова, модернизировать означает сформировать такие административно-правовые нормы, институты и подотрасли, которые будут гарантировать следующее: открытость и доступность государственного управления; придание новой формы системе

государственного управления, соответствующей современным требованиям и

стандартам; соблюдение и защиту прав и свобод человека и гражданина;

информированность общества о публичной управленческой деятельности;

обоснование каждого принимаемого административного акта; законность

публичного управления и преодоление чрезмерного административного

управления; доверие населения к административной власти [4].

Однако, ключевым обстоятельством, препятствующим модернизации, является недостаток системности в государственном управлении. По мнению

профессора В.Г. Садкова, целенаправленное, высокоэффективное и

устойчивое развитие любого государства определяется, прежде всего,

существованием многообещающей концептуальной модели общества,

созданием целостной системы законов, развитием эффективной структуры

исполнительных органов государственной власти, а также

подготовленностью выдвигаемого персонала органов управления всех

уровней, начиная с самого высшего [5].

Соглашаясь с этим мнением, можно подтвердить что, по сути, в результате реформ, модернизации можно построить демократического государства, а также можно защитить на высшем уровне прав человека и гражданина.

Используя современные технологии, исполнительные органы размещают различную информацию о своей деятельности на Интернет-сайтах. Если ранее для получения информации об исполнительном органе или его решениях было необходимо посетить такой орган, направить запрос или обратиться к официальному изданию, то сейчас достаточно посетить официальный сайт данного органа.

С целью удобства индивидов государственные органы систематизируют размещаемую на сайтах информацию. Для того, чтобы содержание размещаемой отдельными исполнительными органами информации соответствовало определенным требованиям, принимаются нормативные правовое акты, содержащие перечни и требования к размещению информации о деятельности исполнительных органов.

Как правило, общие нормы о распространении информации содержатся в законе, во исполнение которого высший исполнительный орган государственной власти принимает более детализированный нормативный правовой акт.

А также, исполнительными органами внедряются новые способы коммуникации с индивидами. При этим индивиды получают возможность обратиться в государственный орган путем заполнения «онлайн-форм». Используя электронные способы идентификации личности (электронный подписи), индивиды приобретают право потребовать у исполнительных органов государственной власти совершения юридически значимых действий в электронной форме.

Важно отметить, для принятия эффективного управленческого решения исполнительным органом требуется предшествующий такому решению всесторонний анализ информации. Необходимо проанализировать причины принятия решения, выявить мнение тех индивидов, на которых будет распространяться принятое решение, оценить последствия принятого решения.

Современные методы сбора и обработки информации помогают сделать процесс принятия решений более эффективным, а принятые решения – более обдуманными.

Следует отметить, как и других стран мира, в Узбекистане уделяется большое внимания на формированию и внедрению электронного правительства, для подтверждения данного процесса можно особо подчеркнуть создания Единого портала интерактивных государственных услуг www.my.gov.uz. 1 июля 2013 года.

Единый портал предназначен для предоставления пользователям интерактивных общедоступных услуг в режиме реального времени через единую точку.

На сегодняшний день пользователям

предоставляется более 209 услуг через Единый портал, можем увидеть что данный момент было зарегистрировано 280, 800 тысяча пользователей, 20,7 миллиона заявок было получено через Единый портал и 14,6 миллиона заявок было получено через Центры государственных услуг [6].

Эти показатели связаны с эффективностью государственного управления в процессе перехода к «электронному правительству» в нашей стране, адаптацией государственных услуг к воле граждан, а также прозрачностью, качеством управления и сотрудничества, повышенным доверием к правительству.

На наш взгляд, использование информационно-коммуникационных технологий - эффективный способ обеспечить координацию в сфере управленческих отношений, а также предоставить физическим лицам информацию о деятельности исполнительной власти, изучить проекты нормативных актов, разработанные исполнительной властью и размещенные на специальных сайтах для обсуждения. будет возможность высказать свое мнение по проблеме.

Сайт https://regulation.gov.uz/, на котором проводится обсуждение проектов нормативных правовых актов Республики Узбекистан, является подтверждением вышеуказанного заключения.

Именно через этот сайт граждане принимают непосредственное участие, свободно и открыто выражая свои взгляды и мнения о нормативных правовых актах, принимаемых органами государственной власти

В частности, на сегодняшний день общественностью, гражданами подано 32 488 предложений по 7146 проектам нормативно-правовых актов [7].

По этим показателям мы можем сказать, что процесс использования информационных технологий в нашей стране позволяет нам оценить уровень открытости и прозрачности в любом секторе государства и общества

А также, в рамках Постановления Кабинета Министров Республики Узбекистан №232 от 7 августа 2015 года "О мерах по дальнейшему совершенствованию Правительственного портала Республики Узбекистан в сети Интернет с учетом предоставления открытых данных" в Республики Узбекистан функционирует портал открытых данных - data.gov.uz.

Согласно “Обзору ООН по электронному правительству 2020”, Узбекистан входит в число 41 страны мира с самым высоким показателем (Very High OGDI) по открытым данным в «Индексе открытых государственных данных». В общей сложности 193 страны были оценены в этом рейтинге, и Узбекистан получил самый высокий балл [8].

Прочную основу для достижения Узбекистаном таких результатов в этом рейтинге, заложили постановления Президента Республики Узбекистан от 9 апреля 2019 года №ПП-4273 «О дополнительных мерах по обеспечению открытости и прозрачности государственного управления, а также повышению статистического потенциала страны» и от 28 апреля 2020 года №ПП-4699 «О мерах по широкому внедрению цифровой экономики и электронного правительства».

Важно отметить, объявление Президентом нашей страны 2020 год «Годом развития науки, просвещения и цифровой экономики» означает, что необходимо продолжать масштабную работу по развитию и реформированию этих областей.

Среди реформ в этой области – в соответствии с Указом Президента Республики Узбекистан «О Государственной программе реализации Стратегии действий по пяти приоритетным направлениям развития Республики

Узбекистан на 2017–2021 годы в Год науки, просвещения и цифровой экономики» № PF-5953 от 2 марта 2020 года единый реестр информационных систем и ресурсов электронного правительства, формирование списков идентификаторов, каталогов и классификаторов, дальнейшее развитие электронного правительства путем внедрения информационных систем управления информацией, а также процедуры электронной отчетности государственных органов и организаций было принято Постановление Кабинета Министров Республики Узбекистан от 16 июля 2020 года № 444 «О дальнейшем развитии электронного правительства, а также о порядке электронной отчетности государственных органов и организаций перед населением» [9] в соответствии с Постановлением Правительства Республики Каракалпакстан, а также Совета Министров Республики Каракалпакстан, хокимиятов областей и города Ташкента, хокимиятов районов (городов) от 1 сентября 2020 года.

В ходе таких преобразований управляющая система для того, чтобы быть эффективной, должна быть неразрывно связана с управляемой системой. Это позволяет достигнуть высокий уровень взаимодействия и взаимопонимания между такими системами, обеспечить быструю передачу принимаемого субъектом управления решения и эффективную реализацию принятого решения объектом управления. Поэтому эффективной является такая управляющая система, которая обладает схожими

признаками с управляемой системой.

В современных условиях огромное значение получает общественная

оценка эффективности государственного управления, отображающая степень

удовлетворения интересов и потребностей отдельных граждан и всего

общества в целом.

Подводя итог вышесказанному, можно сказать, эффективное применения информационных технологий в государственном управлении содействует достигнуть следующие достижения:

- обеспечить координацию в сфере управленческих отношений;
- эффективное распространение информации, увеличение количества доступной для индивидов информации о деятельности субъектов государственного управления;
- увеличение уровня прозрачности и ответственности исполнительных органов;
- формирование новых эффективных способов связи индивидов с исполнительными органами;
- позволяют индивидам получить доступ к информации о деятельности исполнительных органов государственной власти, изучать проекты нормативных правовых актов, разрабатываемые исполнительными органами и размещаемые в открытом доступе для обсуждения;
- доводить свое мнение до органов по тем или иным вопросам;
- увеличение уровня доверия индивидов к системе исполнительных

органов государственной власти;

-снижение уровня издержек граждан, связанных

с получением государственных услуг.

Список использованной литературы:

1. https://president.uz/uz/lists/view/2228
2. Халқ сўзи» газетаси. 25.01.2020 й №19 сон.)
3. Иншакова Е.Г. “Электронное правительство” в публичном управлении: административно-правовые проблемы организации и функционирования. дисс... канд.юрид.наук. Воронеж. - 2015. 28 Стр.
4. Старилов Ю.Н. Реализация конституционных гарантий и модернизация административно-правового регулирования // Административное право и процесс. – 2013.– № 6. – С. 2 – 13.
5. Садков В.Г. Системное проектирование эффективной структуры

федеральных органов исполнительной власти как важнейшее направление инновационной модернизации России: сборник докладов XIII Международной научной конференции «Модернизация России: ключевые проблемы и решения» 20-21 декабря 2012 г. – М. : ИНИОН РАН. – С. 132.

6. https://my.gov.uz/ru/site/statistic-page

7. https://regulation.gov.uz/uz

8.https://publicadministration.un.org/egovkb/Portals/egovkb/Documents/un/2020-Survey/2020%20UN%20E-Government%20Survey%20(Full%20Report).pdf

9.https://lex.uz/docs/4900375

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

DETERMINATION AND CHEMICAL CLASSIFICATION OF MEDICINAL PLANTS GROWING ENVIRONMENT. BIOLOGICAL ACTIVE SUBSTANCES

Foziljonov Shukrullo Fayzullo Ugli[1]

[1]Student of Andijan State University. shukrullofoziljonov@gmail.com

Abstract. The plant organism is very complex. It contains various organic and mineral compounds. Of course, not all of them have the ability to cure any disease. Knowing this is a very important factor for human health, as its chemical composition determines the scope of application. The theoretical purpose of this work is based on the composition of plants and their identification.

Key words: Medical plants, synthesized, metabolites, organic, Rosaceae, solanaceae, chemicals..

Introduction

Medicinal plants have historically proven their value as a source of molecules with therapeutic potential, and nowadays still represent an important pool for the identification of novel drug leads. In the past decades, pharmaceutical industry focused mainly on libraries of synthetic compounds as drug discovery source. They are comparably easy to produce and resupply, and demonstrate good compatibility with established high throughput screening (HTS) platforms. However, at the same time there has been a declining trend in the number of new drugs reaching the market, raising renewed scientific interest in drug discovery from natural sources, despite of its known challenges. In this survey, a brief outline of historical development is provided together with a comprehensive overview of used approaches and recent developments relevant to plant-derived natural product drug discovery. Associated challenges and major strengths of natural product-based drug discovery are critically discussed. A snapshot of the advanced plant-derived natural products that are currently in actively recruiting clinical trials is also presented. Importantly, the transition of a natural compound from a “screening hit” through a “drug lead” to a “marketed drug” is associated with increasingly challenging demands for compound amount, which often cannot be met by re-isolation from the respective plant sources.

Main part.

It is well known that only plants can synthesize organic compounds from inorganic substances that are necessary for all living organisms. The organic compounds synthesized in these plant tissues are usually divided into two groups.

1. Primary synthesized substances - primary metabolites. These include proteins, carbohydrates, lipids, enzymes and vitamins. Primary metabolites are essential compounds for all living organisms, without which there can be no life.

2. Secondary synthesized substances - secondary metabolites. These include all compounds except the primary metabolites that are synthesized in plant tissue. Secondary metabolites are formed from primary

* Corresponding author: shukrullofoziljonov@gmail.com

synthesized substances in plant tissue and in the presence of connective tissue. The main drugs are secondary synthesized compounds. Medicinal substances in plants - biologically active compounds - are constantly changing during ontogenesis and under the influence of various factors during plant growth. They are synthesized, multiply gradually, accumulate in large quantities over a period of time, then decrease, and at some point may disappear completely.

These changes are not only caused by the growth cycle of the plant - ontogeny, but also by environmental factors. Ontogeny is the normal life cycle of any plant, from birth to the natural death of a living organism. External environmental factors influencing the synthesis of medicinal substances in plants, changes in their accumulation include: plant growth, humidity (moisture content in the air and soil), soil composition, temperature (air and heat and cold of the soil), more or less light and sunlight, climate, etc. It is known that each plant has its own place to grow, and it grows well in these conditions. Some plants like in places where there is a lot of leaf humus (Convallaria, etc.), others like saline soils (Glycyrrhiza glabra, Artemisia species, saline, etc.), others like mountain, rocky soils (Ephedra). etc.) or grows well in areas close to human habitats (Hyoscyamus L., Datura stramonium L, etc.). Some plants like moisture (Equisetum arvense valeriana, etc.), while others grow in dry deserts and hills (Gobelia pachycarpa, Thermopsis, incense, etc.). If Digitalis is over-watered during growth, its cardiac glycosides will be less synthesized, and if the moisture content is high, wormwood will not develop. Not all plants need the same amount of heat and light. Jenshen plant grows well in forests (taiga) where humus is abundant, moist, cool and low in light, while Digitalis is well synthesized by cardiac glycosides when there is a lot of light and sunlight. does. Most essential oils are warm and light.

Therefore, the flora of the southern region is rich in essential oil-bearing plants, and the aroma of the essential oils differs from that of the region. On the contrary, some plants (rhodiola, levzeya, etc.) grow well in cool places, in mountainous areas. There are many such examples. It is important to know that each plant synthesizes a large number of biologically active substances that are unique to it and grow in the specific conditions and climate in which it lives and develops. It is important to know the influence of the external environment (moisture, heat, light, soil composition, place of growth, etc.) on the growth, development and synthesis and accumulation of medicinal substances in the above-mentioned plants, and this cases should be taken into account when transplanting medicinal plants from natural conditions to cultivation on plantations. Each plant needs to adapt to the specific conditions and climate when growing it on plantations. The time of accumulation of biologically active substances in plants also depends on the growth period of the plant. The main biologically active substances that have a major effect on the surface and leaves of most plants are before flowering and during flowering, in flowers - at the time of flowering, in fruits and seeds - when they are fully mature, when they are fully grown. In the organs - the plant accumulates in large quantities at the end of the growing season (ontogeny) (late autumn). The maximum concentration of the main drug substance in some medicinal products may not correspond to the above period. It has been found that some alkaloids accumulate to their maximum during the period when the plant is now sprouting and producing roots, and then gradually decrease and turn into other compounds during the flowering of the plant. Such changes can occur not only in alkaloids, but also in other biologically active substances.

Artemisia cina The flowers of the plant are collected not in the flowering period, but in their unopened buds. This is because the active biologically active substance, santonin, accumulates to a maximum in the bud and decreases sharply when it begins to bloom.

In the preparation of medicinal products, taking into account the above, if collected at the right time, the main active ingredients will be in sufficient quantity, and the product will be of high quality.

As mentioned above, the chemical composition of the plant is very complex, consisting of various organic and mineral substances. Not all of them are medicinal and do not have a therapeutic effect in the treatment of the disease. Some interfere with the

* Corresponding author: shukrullofoziljonov@gmail.com

preparation of drugs, impair the quality of the binder during storage of the drug, or cause rapid decomposition of the main chemical compound. MAIN BIOLOGICAL SUBSTANCES OF MEDICINAL PLANTS. Due to the fact that the drug contains biologically active substances that have therapeutic value in the treatment of diseases, it is used in medicine and pharmacy. medicinal biologically active chemical compounds of therapeutic value of the plant are called the main active ingredients. These substances are often aicaloids specific to some plants (Atropa belladonna, Datura stramonium L, Hyoscyamus L, atropine, giossiamine, scopalamine specific to scopoly species), glycosides (Digitalis, strophanthus, adonis, (Convallaria, earthworm plants). specific cardiac glycosides, Rosaceae-specific amygdalin, Brassicaceae-specific sinigrin and other isotiocyanants), coumarins, essential oils, flavonoids, vitamins, lignans, additives and other substances.

Fig.1. Rosaceae -characteristic amygdalin.

Fig.2. Brassicaceae- sinigrin

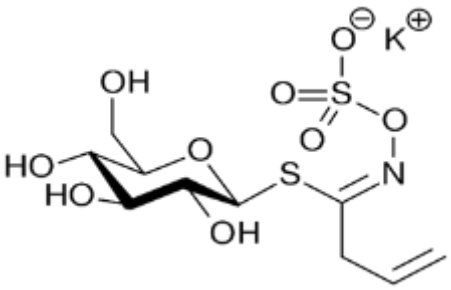
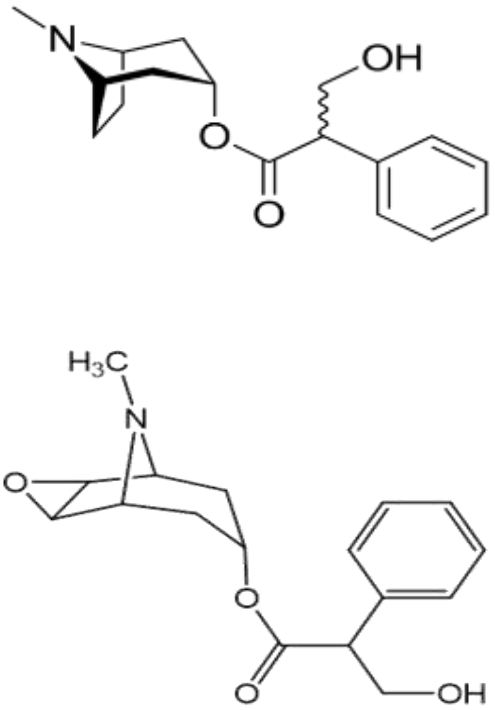


Fig.3. Solanaceae- antropine, scopalamine and another



Conclusion

For millennia, medicinal plants have been a valuable source of therapeutic agents, and still many of today's drugs are plant-derived natural products or their derivatives However, since natural product-based drug discovery is associated with some intrinsic pharmaceutical industry has shifted its main focus toward synthetic compound libraries and HTS for discovery of new drug The obtained results, however, did not meet the expectations as evident in a declining number of new drugs reaching the market This circumstance revitalized the interest in natural product-based drug discovery, despite its high complexity, which in turn necessitates broad interdisciplinary research approaches. Medicinal plants have historically been a rich source for successful drugs, and still represent an important pool for the identification of new pharmacological leads today. Renewed scientific interest in plant-derived natural product-based drug discovery is evident from the analysis of PubMed publications trends Plants are producing numerous chemically highly diverse secondary metabolites which are optimized for exerting biological functions and are still far from being exhaustively

* Corresponding author: shukrullofoziljonov@gmail.com

investigated. Resulting from the revived scientific interest in natural product-based drug discovery, new approaches for the identification, characterization, and resupply of natural products are being developed, that may address some of the challenges related with the development of plant-based therapeutics. One major asset of medicinal plant-based drug discovery is the existence of ethnopharmacological information providing hints for compounds therapeutically effective in humans. In order to harvest its full potential, of particular importance is the adoption of a broad interdisciplinary approach involving ethnopharmacological knowledge, botany, phytochemistry, and more relevant pharmacological testing strategies (e.g., early in vivo efficacy studies and compound identification strategies including metabolism and synergistic action of the plant constituents). Resupply from the original plant species is very often unfeasible to meet market demands upon commercialization of a natural product, and alternative resupply approaches are being developed that rely on biotechnological production or chemical synthesis.

References

Bucar F, Wube A, Schmid M. Natural product isolation — how to get from biological material to pure compounds. Nat. Prod. Rep. 2013;30:525–545.

Bulger PG, Bagal SK, Marquez R. Recent advances in biomimetic natural product synthesis. Nat. Prod. Rep. 2008;25:254–297.

Burton G, Evans-Illidge EA. Emerging R and D law: the Nagoya Protocol and its implications for researchers. ACS Chem. Biol. 2014;9:588–591.

Butler MS. The role of natural product chemistry in drug discovery. J. Nat. Prod. 2004;67:2141–2153.

Butler MS. Natural products to drugs: natural product derived compounds in clinical trials. Nat. Prod. Rep. 2005;22:162–195.

Butler MS. Natural products to drugs: natural product-derived compounds in clinical trials. Nat. Prod. Rep. 2008;25:475–516.

Butler MS, Robertson AA, Cooper MA. Natural product and natural product derived drugs in clinical trials. Nat. Prod. Rep. 2014;31:1612–1661.

Butterweck V, Nahrstedt A. What is the best strategy for preclinical testing of botanicals? A critical perspective. Planta Med. 2012;78:747–754

Agrochemistry (edited by B.A. Yagodin). Moscow, 1982.

Atlas of habitats and sources of perennial plants of the USSR. Moscow, 1976.

Ataboyeva H.N. and others. meshshunoslik. Tashkent, 1995.

Agrotechnical issues for the cultivation of medicinal crops. Part 1, Moscow, 1987.

Murdaxaev Yu.M. Medicinal culture in Uzbekistan, Tashkent, 2001.

Murdaxayev Yu.M. 0 'In Uzbekistan, the homeland package is medicinal. Tashkent, 1990.

Musayev BS "Fertilizer development system", Tashkent, 1998.

Musayev B. S. Agrochemistry. Tashkent, 2001

Reference on medicinal cultures. Voronezh, 1963.

TTurova A.D.Sapojnikova E.N. Medicinal plants of the USSR and their application. Moscow, 1982.

Xolmatov H.X. etc. Russian-Latin-Uzbek Dictionary of Medicinal Plants, Tashkent, 1992.

European Pharmacopoeia. - 4 th ed., Plant Drug Analysis. -

Springer -Veriag Berlin Heidelberg, 1996. - 2420 p.

European Pharmacopoeia. 3d Edition - Strasbourg: Council

of Europe, 1997.-2420 r..

* Corresponding author: shukrullofoziljonov@gmail.com

ISSN: 2181-1067 Journal homepage: www.summusjournals.uz

International scientific and technical journal
INNOVATION TECHNICAL AND TECHNOLOGY
Vol.1, №.2. 2020.

БОРТОВАЯ ДИАГНОСТИКА ДВИГАТЕЛЕЙ ПАССАЖИРСКОГО ЛОКОМОТИВА

Валиев М.Ш., Қосимов Х.Р.

Ташкентский государственный транспортный университет, 100167, Адылходжаева 1, Ташкент, Узбекистан

Аннотация. Повышение экономичности и надежности, ресурса и технико-экономических показателей работы локомотивов является одним из основных направлений повышения эффективности локомотивного хозяйства и снижения эксплуатационных расходов железных дорог. Решение этой проблемы невозможно без внедрения современных систем технического обслуживания локомотивов, основанных на учете их фактического технического состояния при планировании объёма ремонта. Достоверная оценка качества рабочего процесса требует контролирования двигателей в эксплуатационных условиях. Применение безразборной диагностики и текущего контроля ДВС (двигатель внутреннего сгорания) позволит повысить их топливную экономичность, обеспечит надежное и безаварийное функционирование локомотива.

Ключевые слова. система технического обслуживания, стационарная диагностика, бортовая диагностика, микропроцессорная система, диагностика дизеля, дизель, цилиндро-поршневая группа.

Введение

В течение ряда последних лет уделяется значительное внимание внедрению средств технической диагностики в технологический процесс обслуживания и ремонта локомотивов. При этом основные усилия и материальные ресурсы направляются на разработку и внедрение средств стационарной диагностики, размещаемых в ремонтных цехах локомотивных депо. Однако опыт их эксплуатации показывает, что ожидаемого существенного сокращения расходов на техническое обслуживание и ремонт локомотивов удается не всегда вследствие значительных затрат времени на подготовку и проведение диагностирования, которые во многих случаях сопоставимы с временем, необходимым для замены соответствующих узлов. При этих условиях выполнение регулярного периодического диагностирования локомотива, необходимого для достоверной оценки его текущего технического состояния, как правило, невозможно.

Эффективность использования средств стационарной диагностики

может быть существенно повышена в случае использования их совместно со средствами бортовой диагностики, осуществляющих непрерывный контроль значений основных параметров оборудования локомотива непосредственно во время его эксплуатации. В этом случае процесс технического обслуживания локомотива может осуществляться по следующей схеме.

Общая оценка технического состояния оборудования локомотива осуществляется средствами бортовой диагностики. В случае выявления отклонений в процессе ближайшего планового ремонта или технического обслуживания выполняется детальное диагностирование соответствующего оборудования с использованием средств стационарной диагностики, в процессе которого выполняется локализация отказа с последующем его устранением.

Основным препятствием на пути внедрения подобной системы технического обслуживания является чрезвычайно низкий уровень контролепригодности серийных локомотивов, практически исключающий возможность внедрения средств бортовой диагностики без существенной доработки конструкции силовых установок локомотивов.

Ситуация начала меняться с внедрением бортовых микропроцессорных систем автоматического управления, которые, наряду с управлением силовой установкой, осуществляют непрерывный контроль значительного количества параметров состояния оборудования локомотива. В этих условиях особую актуальность приобретает задача разработки методов оценки технического состояния локомотива с использованием информации, получаемой от системы автоматического управление, поскольку отсутствие таких методов исключает возможность использования этой информации в процессе технического обслуживания локомотива и снижает эффективность вложения средств, затраченных на разработку и изготовление систем автоматического управления.

Задача достоверной оценки качества рабочего процесса в цилиндрах дизеля и технического состояния определяющих его узлов топливной аппаратуры и цилиндро-поршневой группы в настоящее время решается стационарными средствами диагностики на основании анализа индикаторной диаграммы рабочего процесса. Использование подобных методов для непрерывного контроля технического состояния дизеля в эксплуатации невозможно по ряду причин, основной из которых является отсутствие технической возможности непрерывного измерения давления в цилиндре дизеля, которое необходимо для снятия индикаторной диаграммы. В связи с этим актуальной является задача разработки методов интегральной оценки качества рабочего процесса в цилиндре дизеля с использованием ограниченного набора параметров, контролируемых современными средствами автоматического управления силовой установки локомотива.

Как показывает анализ технического состояния локомотивов количество случаев порч и неисправностей локомотивов в пути следования, связанных с повреждением дизеля в среднем составляет около 35% в общем количестве. Наибольшее количество повреждений дизеля приходится на цилиндро-поршневую группу и на топливную аппаратуру. Очевидно, для повышения эффективности использование локомотивов необходимо разработать методы и средства для оценки технического

состояния наиболее повреждаемых узлов. В настоящее время создаются множество различных средств, для контроля, управления и диагностики локомотивов. Наиболее перспективным из них является бортовая система управления и диагностики МСУ-ТП.

В рамках работ по созданию локомотивов научно-исследовательским и конструкторско-технологическим институтом подвижного состава (ВНИКТИ) разработана бортовая микропроцессорная система управления, регулирования и диагностики локомотивов МСУ-ТП [1]. Система МСУ-ТП является микропроцессорной системой нового поколения из ряда микропроцессорных система управления и регулирования электрической передачей локомотивов (МСКУ-1, АСУБ «Локомотив», УСТА). Система обеспечивает управление электрической схемой локомотива, контроль режимов работы локомотивного оборудования, диагностику основных систем и узлов с выдачей информации машинисту о состоянии локомотивного оборудования, межсекционный обмен управляющей и диагностической информацией.

Одной из функций системы МСУ-ТП на локомотивах ТЭП70БС является встроенная (бортовая) система диагностики основного локомотивного оборудования.

Системой постоянно контролируется целый ряд параметров дизельных, электрических и вспомогательных систем локомотива. Параметры контролирующие состояние дизеля (рис. 1):

- давление наддувочного воздуха (кгс/см^2);
- давление масла (кгс/см^2);
- давление топлива (кгс/см^2);
- разрежение на входе турбокомпрессора (кгс/см^2);
- температура окружающего воздуха (°С);
- температура отработавших газов на выходе из дизеля (°С);
- температура масла на выходе из дизеля (°С);
- температура воды на выходе из дизеля (°С);
- температура воды на входе в охладитель наддувочного воздуха (°С);
- температура топлива на входе в дизель (°С);
- частота вращения коленчатого вала дизеля (об/мин);
- частота вращения ротора турбокомпрессора (об/мин);
- положение рейки ТНВД (коды);
- мощность (кВт).

Внедрение системы МСУ-ТП существенно облегчает труд локомотивных бригад и работников обслуживающего персонала, сокращая время на поиск и устранение неисправностей, возникающих в процессе эксплуатации и ремонта. За счет непрерывной записи на внешние дополнительные устройства обеспечивается возможность получения объективной оценки событий, возникающих в процессе поездки, а также накопление данных для статической обработки полученной информации.

Рис. 1. Подсистема диагностики дизеля

Бортовая система диагностики производит сигнализацию в аварийных

ситуациях. Путем отображения на экране сообщение о выходе отдельных параметров за допустимые пределы. Этим и ограничивается функция диагностики. Очевидно что, такая диагностика не эффективна, так как выход за пределами некоторых параметров не означает, что техническое состояние ухудшилось.

Практика использования локомотивов показывает, что полученная информация используются только для контроля нескольких узлов и систем, а большая часть весьма ценной информации не используется.

Для реализации всех возможностей бортовой системы необходимо контролировать техническое состояние двигателя по интегральной оценке рабочего процесса. Интегральная оценка – это обобщенная оценка, выявляющая работоспособность в целом, без детализации. Проверяется соответствие технического состояние к требованиям эксплуатации.

Системой МСУ-ТП контролируются следующие параметры рабочего процесса дизеля: давление наддува, температура отработавших газов, обороты коленчатого вала, выход реек. Значение каждого из них в отдельности в любой момент времени определяется значительным количеством различных факторов и не может использоваться в качестве самостоятельного критерия технического состояния. Однако в практике эксплуатации транспортных дизелей (прежде всего судовых) широкую известность получили методы, основанные на т.н. симплексах (метод планирования и обработки эксперимента, такой же, как стохастический, графоаналитический), т.е. вычисляемых критериях, зависящих от совокупности значения определенного набора параметров рабочего процесса (рис. 2).

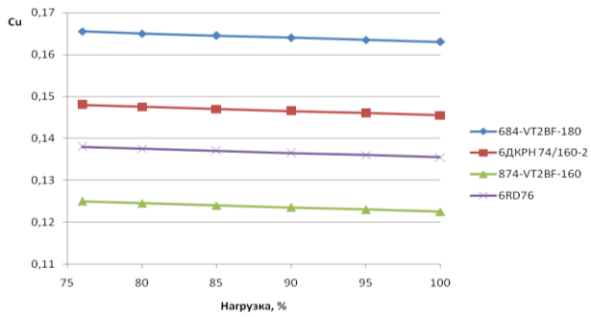


Рис 2. Зависимость симплекса Cu от нагрузки двигателя

В частности известны симплексы Pc/tor - для судовых дизелей [2], tcp.ц/tor - для автомобильных и автотракторных дизелей. Но их использовать напрямую неудобно, так как во время эксплуатации с помощью бортовых средств измерить Pc (давление сжатие) невозможна. Исследуя различные параметры рабочего процесса предлагается оценивать техническое состояние по соотношению Δ tor /tor от gц(цикловой подачи) (рис. 3).

Выбранные параметры являются, наиболее информативны. На формирование параметров оказывают влияние основные элементы и узлы дизеля: турбокомпрессор, цилиндропоршневая группа, топливная аппаратура, впусные и выпускные трубы. Вследствие этого величина Cu может быть принята для оценки технического состояния дизеля.

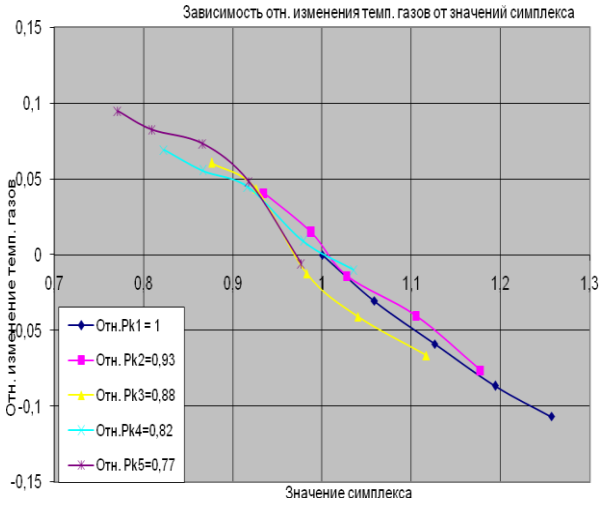


Рис 3. Зависимость относительного

изменения температуры газов от значения симплекса

Как показывают расчеты величина симплекса почти постоянно при изменении нагрузки дизеля (рис. 3), но изменяется в зависимости от его технического состояния. Отклонение в эксплуатации значения симплекса от номинала будет свидетельствовать об изменении общего технического состояния дизеля и является сигналом для проведения более тщательного диагностирования с помощью стационарных средств в ближайшем ремонте.

При изменении режима работы исправного двигателя (цикловой подачи топлива одновременно во все цилиндры) изменяется температура отработавших газов на выходе из всех цилиндров, что приводит к изменению температуры газов перед турбиной, мощности турбины, давления наддува и, соответственно, давления в конце сжатия. В результате отношение давления наддува к температуре отработавших газов может оставаться примерно постоянным.

В случае нарушения нормального протекания рабочего процесса в каком-либо из цилиндров например, вследствие ухудшения качества распыливания топлива форсункой, увеличивается температура газов на выходе из данного цилиндра. Однако это не приведет к существенному изменению температуры газов перед турбиной двигателя, вследствие чего давление наддува и давление в конце сжатия в данном цилиндре останутся неизменными. Значение симплекса уменьшится, что будет свидетельствовать об ухудшении технического состояния цилиндра. К такому же изменению значения симплекса приведет износ деталей цилиндро – поршневой группы, поршневых колец и втулки цилиндра и вызванное им снижение давления в конце сжатия.

К сожалению, использование данного симплекса для оценки качества рабочего процесса в цилиндрах локомотивного дизеля не представляется возможным. Определение давления в конце сжатия возможно только по индикаторной диаграмме, снятие и анализ которой в условиях эксплуатации невозможно. Учитывая то, что основными факторами, определяющими величину давления в конце сжатия, являются частота вращения коленчатого вала и давление воздуха во впускном коллекторе дизеля, можно предложить использовать вместо давления в конце сжатия значения давления во впускном коллекторе двигателя Рк. Однако информативность симплекса Рк/ Тог (как и оригинального Рс/Тог) во многом зависит от параметров и конструктивных особенностей двигателя, в первую очередь его системы наддува. Так, для форсированных локомотивных дизелей типа Д49 (ЧН26/26) значение отношения Рк/ Тог не остается постоянным при работе в режимах тепловозной и нагрузочных характеристик.

При нормальном техническом состоянии дизеля на каждой позиции контроллера изменяется только величина цикловой подачи топлива, что приводит к изменению давления наддува Рк, давления в выпускном коллекторе Рт, коэффициента избытка воздуха в цилиндре α и, как следствие, температуры отработавших газов Тог.

Поэтому в качестве симплекса в работе предлагается использовать относительное изменение температуры отработавших газов $\overline{\Delta T_{or}}$ к относительному изменению коэффициента избытка воздуха в

цилиндре дизеля $\overline{\Delta\alpha}$. Величина данного симплекса при изменение режима работы исправного двигателя остается постоянным на каждой позиции контроллера машиниста. Но в случае нарушения нормального протекания рабочего процесса в цилиндре (например, вследствие изменения угла опережения подачи топлива, ухудшения качества смесеобразования вследствие неисправности топливной аппаратуры) во время эксплуатации величина симплекса отклоняется от номинального значения, что свидетельствует об изменении общего технического состояния дизеля и служит основанием для постановки его на стационарный диагностический контроль.

С целью более основательной проверки сделанных выводов было выполнено исследование изменения параметров рабочего процесса дизеля при работе его по нагрузочным характеристикам на математической модели рабочего процесса. В процессе исследования моделировалась работа дизеля с различной частотой вращения коленчатого вала (на разных позициях контроллера машиниста) при изменении цикловой подачи топлива и сохранении постоянного значения давления наддува.

Зависимости определялись расчетным путем. Для осуществление расчетов была разработана математическая модель рабочего процесса дизеля.

Выводы

В результате статистического анализа измерительной информации, полученной от системы автоматического регулирования дизель-генераторной установки локомотивов, для каждой позиции контроллера устанавливаются значения математических ожиданий значений основных параметров рабочего процесса, контролируемых системой (P_K, h_P, T_{OG}, T_K), которые принимаются за номинальные значения этих величин. По этим же данным для конкретных типов дизелей уточняются зависимости, представленные на слайд 5, которые после уточнения принимаются за эталонные. В процессе эксплуатации локомотива бортовой вычислительный комплекс системы автоматического регулирования или отдельной системы диагностирования осуществляет непрерывный контроль относительных изменений основных параметров рабочего процесса и их соответствие эталонным кривым. Существенное отклонения относительных изменений контролируемых параметров от эталонных кривых будет свидетельствовать о нарушении нормального протекания рабочего процесса в цилиндре дизеля.

Реализация данного алгоритма позволит существенно повысить эффективность средств бортовой диагностики современных микропроцессорных систем автоматического регулирования дизель-генераторных установок локомотивов и стационарного диагностического оборудования локомотивных депо, сократить непроизводительный простой локомотивов в ремонте и снизить его стоимость за счет исключения разборки исправных узлов.

Особенность решаемой задачи состоит в том, что оценка должна выполняться с преимущественным использованием ограниченного количества диагностических параметров, которые контролируются системой управления и диагностики. Использование дополнительных параметров крайне нежелательно, так как приводит к удорожанию и

снижению эффективности применения системы диагностирования.

Литература

1. Бортовая система диагностики локомотива ТЭП70БС /Федотов М.В., Набатчиков Ю.Н. // Труды ВНИКТИ,-2004-№ 83-с.92-96.

2. Система МСУ-Т магистрального пассажирского локомотива ТЭП70БС /Сергеев. С.В., Камышников С.А. //Труды ВНИКТИ,-2004-№ 83-с.64-76.

3. Грачев, В.В. Оценка технического состояния тепловозного дизеля по данным бортовой микропроцессорной системы управления / В.В. Грачев, М.Ш. Валиев // Известия ПГУПСа / Петербургский государственный университет путей сообщения. – Санкт-Петербург. – 2010. – №1(22). – с. 22 – 32.

4. Валиев, М.Ш. Диагностика рабочего процесса тепловозного дизеля в условиях эксплуатации / М.Ш. Валиев // Вестник Транспорта Поволжья / Самарский государственный университет путей сообщения. – Самара. – 2011. – №1(25). - С. 35 – 39.

5. Грачев, В.В. Оценка технического состояния цилиндров дизеля с использованием датчика содержания кислорода в отработавших газах / В.В. Грачев, М.Ш. Валиев // Известия ПГУПСа / Петербургский государственный университет путей сообщения. – Санкт-Петербург. – 2011. – №2(27). – С. 25 – 32.

6. Валиев М.Ш. Оценка технического состояния тепловозного дизля в эксплуатации. / М.Ш.Валиев., Ш.С.Файзыбаев. – Будущее машиностроения России. Сборник докладов Восьмой Всероссийской конференции молодых ученых и специалистов. 2015. С.796-798.

7. Валиев М.Ш. Применение датчика для контроля качества рабочего процесса тепловозного дизеля/ М.Ш.Валиев. – Локомотивы. Газомоторное топлиов (Проблемы. Решения. Перспективы) Материалы I Международной научно-практическоей конференции. 2016. С.69-73.

8. Валиев М.Ш. Применение датчика содержания кислорода для контроля величины коэффициента избытка воздуха тепловозного дизеля/ М.Ш.Валиев. - Известия Транссиба. 2017. №2 (30).с.9-17.