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Contents

MORPHOBIOLOGICAL CHARACTERISTICS AND VALUABLE ECONOMIC CHARACTERISTICS OF GRAPE COLLECTION VARIETIES

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INTRODUCTION

It is very important to increase the number of vineyards in Uzbekistan, to create new varieties of grapes, to achieve high productivity, vitamin content, and the cultivation of ecologically clean products. In the decree of the President of the Republic of Uzbekistan No. PF-60 of January 28, 2022 "On the development strategy of New Uzbekistan for 2022-2026" "Through intensive development of agriculture on a scientific basis, to increase the income of farmers and farmers by at least 2 times, to increase the annual growth of agriculture by at least In order to reach 5%, special attention is paid to increasing the volume of food products to 7.4 million tons by 2026, and the processing level of fruits and vegetables to 28%. In this regard, the preparation of healthy ECU materials for the propagation of seedlings of grape varieties in Uzbekistan is an actual scientific direction.

The purpose of the research is to separate the varieties and forms of the collection of grape varieties with morpho-biological characteristics, a high level of positive set of valuable economic signs, and to multiply them in vitro.

The tasks of the research are as follows:
• evaluation of grape varieties and forms according to morpho-biological characteristics and valuable economic signs;
• selection of varieties and forms for in vitro propagation from the collection of grapes;
• determination of optimal drug and rate for surface sterilization of grape varieties in vitro.

During the study of the growth and morpho-biological characteristics of the grape varieties, the transition and duration of the vegetation phases were significantly different. It was confirmed that the duration of the beginning of the vegetation phases in the collection varieties that participated in our experiments depend on the biological characteristics of the variety and the conditions under which they grow.

The movement of aphids in the grape variety lasted from March 1 to March 6, that is, for 6 days.

In this group, it was observed that in the conditions of the Tashkent region, the beginning of budding mainly coincides with the first ten days of April. In this case, the recording of buds was recorded in Nimrang, Perlet, Surkhan kitabsky, Muskat Aleksandriysiy, Husayne bely varieties the earliest, i.e. on April 4-7. The latest bud recording was observed in Katta Kurgan, Pobeda (Mers), Khusayne muskatyy, Khusayne chernyy, Shtur grape varieties and fell on April 12-15.

The rest of the varieties took an intermediate place in terms of the phase of bud formation.

Observations showed that the beginning of the flowering phase of the studied cultivars also differed among grape cultivars. In this case, the earliest flowering was observed on May 12-13, and appeared in Guzal kara, Nimrang, Rizamat, Soyaki, Sultani, Soyaki, Muskat danausky, Tuya tish, Khusayne belyy, Shtur angur, Ertapishari varieties. The latest flowering was observed after May 17 in Katta kurgan, Hurmany kizyl, Khusayne kelin barmak varieties. The rest of the varieties took an intermediate place between the above groups of varieties in terms of the beginning of the flowering period, and the dates close to the control Andijanskiy chyornyy variety were recorded (see Table 1).

Table 1 Transition of vegetation phases in grape varieties (2020-2022)

The name of the variety	Beginning of vegetation phases, date						From the beginning of the growth of the tumor to the end, day
	sap action	bud writing	bloom	crowd growth		Gujum's cooking	
				beginning	ending		
Andijansky chyornyi	3/III	11/IV	16/V	22/V	14/VII	25/VII	52
Beautiful black	1/III	10/IV	13/V	20/V	9/VII	20/VII	50
Djandjal kara	4/III	8/IV	14/V	21/III	11/VII	22/VII	52
Doroi	6/III	8/IV	14/V	22/V	9/VII	19/VII	48
It is big	5/III	14/IV	18/V	20/V	20/VII	19/VII	48
Nimrang	5/IX	7/IV	13/V	19/V	15/VII	21/VII	45
Oktyabrsky	4/III	9/IV	15/V	21/V	10/VII	19/VII	51
Parkent	4/III	10/IV	16/V	22/V	14/VII	23/VII	49
Perlet	4/III	4/IV	14/V	20/V	9/VII	20/VII	50
Pobeda (Mers)	3/III	14/IV	15/V	20/V	12/VII	24/VII	52
Ranny Schroeder	3/III	10/IV	15/V	21/V	17/VII	16/VII	48
Regards	2/III	11/IV	13/V	19/V	7/VII	16/VII	49
Soyaki	2/III	9/IV	13/V	19/V	10/VII	22/VII	52
Sultan	5/III	10/IV	13/V	20/V	10/VII	18/VII	51
Surkhan Kitabsky	2/III	7/IV	13/V	20/V	4/VII	4/VII	45
Type rozovyy	1/III	8/IV	16/V	21/V	8/VII	20/VII	51
Camel tooth	2/III	10/IV	12/V	18/V	7/VII	10/VII	49
Muskat Alexandria	1/III	6/IV	15/V	19/V	8/VII	21/VII	49
Uzbek nutmeg	4/III	9/IV	14/V	19/V	29/VI	3/VII	40
Persimmon red	1/III	11/IV	17/V	22/V	16/VII	25/VII	52
Husayne Bely	3/III	7/IV	13/V	20/V	9/VII	18/VII	50
Husain's bride	3/III	9/IV	17/V	24/V	12/VII	19/VII	49
Husayne Muskatyy	2/III	15/IV	16/V	21/V	11/VII	22/VII	51
Husayne Cherny	5/III	15/IV	16/V	23/V	11/VII	21/VII	50
Stur grape	4/III	12/IV	12/V	19/V	10/VII	16/VII	52
Morning	2/III	8/IV	12/V	21/V	1/VII	6/VII	42

Varieties were also differentiated by the growth and ripening of the pods. Therefore, the earliest ripening of gujums was observed in Muscat Uzbekistansky (3/VII), Surkhan Kitabsky (4/VII) and Ertapishari (6/VII) varieties. The latest ripening was observed in Pobeda (Mers) and Hurmany kizyl varieties. In these varieties, the bunches ripened on July 24-25. The rest of the varieties took an intermediate place in terms of ripening period.

The total period of growth of gujums did not differ sharply by varieties and averaged 42-52 days. Based on the study of the formation of clusters, the beginning and end of growth, as well as the duration of this period, they were divided into the following groups: early varieties (27/VI-6/VII): Surkhan kitabsky, Muskat Uzbekistansky and Ertapishari; late ripening varieties (21/VII29/VII): Djandjal kara, Nimrang, Parkent, Pobeda (Mers), Soyaki, Muskat Aleksandriysiy, Hurmany kizyl, Khusayne muskatyy, Desert; medium varieties (7/VII-20/VII): all other varieties.

It should be noted that the period from the beginning of the movement of sap to the beginning of khazonism was different in the samples of the collected varieties of grapes studied. With the longest growth period, such varieties as Guzal Kara, Magarchsky, Surkhan Kitabsky, Muskat Uzbekistansky, Rizamat and Tayfi Rozovy stood out. The length of the growing season in these varieties varied around 224-229 days. Nimrang and Husayne black varieties have the shortest growing season in the grape collection. In these varieties, the first signs of frostbite began to appear after 203-207 days from the beginning of the movement of aphids.

Observations on the total length of the growing season showed that all the remaining samples of the grape varieties occupied an intermediate place in terms of the length of the growing season, and this phenological indicator changed around 209-221 days. It is known that, regardless of the growth phases of plants and their duration, the efficiency of cultivated plants is evaluated directly by the elements of the crop formed in them.

In our research, the elements of yield in grape variety samples were significantly different (see Table 3.3). Consequently, among the grape varieties, the highest indicators of productive branches, i.e., the highest yield of productive branches, were distinguished by Katta Kurgan 72.0%, Gozal Kara 69.0%, Doroi (65.5%), Rizamat (64.5%) varieties. . In these varieties, the yield of branches was higher than 60% of the total number of branches. The lowest yield percentage was observed in Taifi Rozovy and Muscat Alexandria varieties. It was noted that this biometric indicator did not exceed 36.5%. The rest of the varieties took an intermediate place between the above varieties in terms of the productivity of the branches.

In the group of varieties belonging to the eastern ecological group, the number of vines on the productive branch did not differ sharply and the variation was 1.0-1.8. The number of vines in a developed branch did not differ strongly and varied around 0.4-0.9. The only exception was the Katta Kurgan variety, in which the number of vines on the developed branch was 1.1. It should be mentioned that special attention should be paid to the Katta Kurgan variety. In this variety, 72.0% of fruitful branches and 37.0% of double-headed branches were recorded. 1.5 and 1.1 vines per mature branch corresponded to each fruitful branch. These are the highest indicators of productivity.

Self pollination. According to a number of scientists, self-pollination is a highly valued biological and economic characteristic of grape varieties, like other groups of varieties. In our studies on the study of this biological sign in the plants of the collection of different varieties of grapes, the varieties were also differentiated.

Our observations showed that grape varieties differed significantly in terms of the number of lowers formed and the indicator of self-pollination. The number of these flowers varied from 355 to 582 according to varieties. However, the number of flowers does not play a major role in terms of self-

pollination. Therefore, the study of normally formed clusters in varieties in isolated conditions made it possible to obtain the following results. In particular, the varieties Andijansky chyornyy, Guzal kara, Djandzhal kara, Pobeda (Mers), Rizamat, Soyaki, Tuya tish and Muskat uzbekistansky were distinguished by the highest self-pollination (see Table 2).

Table 2 Self-pollination of grape samples (2020-2022)

Varietal name	The number of flowers in an inflorescence, pcs	of which %			
		spilled buds	shed knots	bitter crowds	normal crowds
Andijansky chyornyi	469±6.9	6.3	52.6	6.6	34.5
Beautiful black	421±6.2	5.5	51.9	10.3	32.3
Djandjal kara	419±6.2	7.0	50.1	11.4	31.5
Doroi	419±6.2	6.3	55.2	9.0	29.5
It is big	410±6.0	5.7	62.3	2.1	29.7
Nimrang	397±5.8	3.9	66.7	8.9	20.5
Oktyabrsky	582±8.6	2.3	68.7	8.4	20.0
Parkent	422±6.2	4.3	66.1	3.4	26.2
Perlet	418±6.2	6.0	57.4	8.1	28.5
Pobeda (Mers)	396±5.8	3.6	58.2	6.3	31.9
Ranny Schroeder	414±8.5	4.3	66.5	5.4	23.8
Regards	426±8.7	4.8	46.2	7.1	41.9
Soyaki	360±7.3	2.3	53.6	4.3	33.8
Sultan	377±7.7	8.9	67.0	4.3	19.8
Surkhan Kitabsky	360±7.3	4.6	68.3	1.5	25.3
Type rozovyy	355±7.2	6.6	66.4	6.2	20.8
Camel tooth	355±7.2	5.1	56.2	7.9	30.7
Muskat Alexandria	377±7.7	5.0	64.1	12.5	18.4
Uzbek nutmeg	436±8.9	3.8	53.8	9.1	33.3
Persimmon red	419±8.6	6.5	65.1	8.0	20.1
Husayne Bely	347±5.1	5.1	60.0	9.7	25.2
Husain's bride	389±5.7	4.9	66.3	6.5	22.3
Husayne Muskatyy	332±4.9	5.9	63.5	8.3	22.3
Husayne Cherny	366±5.4	4.7	65.0	6.4	23.9
Stur grape	423±6.2	6.2	63.5	8.0	22.3
In the morning	352±5.2	6.1	55.7	9.2	23.0
EKF05	13.4	-	-	-	-
sx%	3.3	-	-	-	-

It was noted that in these varieties, the amount of normal clusters formed in relation to the total flowers formed was higher than 30%. The slowest self-pollination was observed in the varieties Oktyabrsky, Sultani, Taifi rozovy, Muskat Aleksandriysi, Hurmany kizyl. Self-pollination in these varieties did not exceed 18.4-20.8%. The remaining varieties took an intermediate place between the above varieties in terms of self-pollination.

In studying the self-pollination of grape varieties, the number of bitter clusters is an important indicator, because such clusters are formed from the egg cell without fertilization and are called parthenocarpic. Indicators of the formation of normal clusters at the beginning of the vine can determine the degree of self-pollination of the variety.

Andijansky chyornyy (34.5 %), Guzal kara (32.3 %), Djandzhal kara (31.5 %), Pobeda (Mers) (31.9 %), Rizamat (41.9 %), Soyaki (33.8 %), Camel's tooth (30.7 %) and Muscat uzbekistansky (33.3 %) belonged to the varieties. The formation of clusters in the remaining varieties had intermediate indicators between the above-mentioned varieties. This allows us to conclude that the use of separate pollinating varieties for these grape varieties ensures high productivity.

Resistance to common diseases

It is known that grapevine is one of the cultivated plants that are most affected by fungal and bacterial diseases. Fungal and bacterial diseases damage almost all vegetative (branches, leaves, buds, etc.) and generative (flowers, clusters) organs of vines. This not only reduces the productivity of the plant and the quality of the mass, but also can cause the plant to lag behind in growth and development and even cause its complete death. Therefore, in the study of grape varieties, their resistance to this stress factor is an important biological and economic characteristic. In our studies on the study of this biological sign in the plants of the collection of samples belonging to different ecological-geographical groups of grapes, the samples were differentiated.

In the samples of grape varieties, the strongest oidium damage - 1.3 points - was recorded in Nimrang and Khusayne kelin barmak varieties. Relatively weaker damage, i.e. at the level of 0.3-0.7 points, was observed in Andijansky chyornyy, Djandjal kara, Parkent, Soyaki, Sultani, Surkhan kitabsky, Tuya tish, Muskat Alexandriysiy, Muskat uzbekistanskyi, Khusayne belyy and Shtur grape varieties. Average damage (1.0 points)Doroi, Katta Kurgan, Perlet, Pobeda (Mers), Ranniy Shrodera, Husayne muskatyy, Husayne chernyy and Ertapishari varieties were recorded. The remaining varieties showed resistance to this disease (see Table 3.5). In grape varieties, anthracnose damage (0.3 points) was recorded in Khindogni, Muscat Alexandriisi and Khusayne Bely varieties. In all other varieties, this disease was not detected during the research years. The strongest damage (1.0 points) in terms of spot necrosis was observed in varieties Soyaki, Hurmany kizyl, Khusayne muskatyy and Khusayne chernyy.

SUMMARY

1 The movement of sap in all varieties of grape harvest begins in the first ten days of March - from March 1 to March 10, the earliest phase of bud writing - from April 2 to March 7, and late writing corresponds to April 12-17.

2. Based on the study of the formation of clusters, the beginning and end of growth, as well as the duration of this period, they were divided into the following groups:
early varieties(27/VI-6/VII): Surkhan Kitabsky, Muskat Uzbekistansky and Ertapishari;
Late ripening varieties(21/VII-29/VII): Djandjal kara, Nimrang, Parkent, Pobeda (Mers), Soyaki, Muskat Alexandriisiy, Hurmany kizyl, Husayne muskatyy, Desert; Medium varieties(7/VII-20/VII): all other varieties.

3. Andijanskiy chyornyy, Doroi, Katta kurgan, Rizamat varieties with the highest indicators of productive branches (60-70%) and productivity coefficients (1.3-1.5 and 0.8-1.5) were distinguished from the studied grape varieties.

REFERENCES

Buriev Kh.Ch., Enileev N.Sh. and b. Methods of calculations and phenological observations in conducting experiments with fruit and berry-bearing plants. - T., 2014. - 64 p.

Aliev A. M., Naumova L.G. Novye table sorta vinograda dlya zony ukryvnogo vinogradstva // Vinodelie i vinogradstva. - Moscow, 2001. - No. 3. - S. 26-27.

Likhovsky V.V. Methodology of sovershenstvovaniya geneticheskogo raznoobraziya i sortimenta vinograda. Autoref. doc. diss. s.-x. science - Krasnodar, 2018. - S. 5-8.

Altmayer B. The use of in vitro culture of grapevines to eliminate pathogens (different viruses, Agrobacterium tumifaciens) // Vitis.Special Issue/. 1990. P. 463.

. Jo'rayev, S. T., Xudarganov, K. O. (2022). Qishloq ekinlari urug'chiligi va urpug'shunosligi. LESSON PRESS, 1(1), 167.

Jo'rayev, S. T. (2022). Go'za seleksiyasi va urug'chiligi. LESSON PRESS, 1(1), 288.

Jo'rayev, S. T., Ashurov, M., Narmatova, G., Toreev, F., Akhmedov, D., Mavlonova, N., Ergashev, J., Baratova, A. (2022). Cotton breeding and seed production. LESSON PRESS, 1(1), 224.

Jo'rayev, S. T. (2022). G'o'zaning introgressiv duragay va tizmalirning O'zbekistondagi xar xil tuproq sharoitlarda bo'lgan adaptiv patinsolidan foydalanish. LESSON PRESS, 1(1), 211.

Jo'rayev, S. T. (2022). G'o'za genetikasi. LESSON PRESS, 1(1), 96.

Jo'rayev, S. T., Ergashov, J. A. (2022). Moyli ekinlar seleksiyasi va urug'chiligi. LESSON PRESS, 1(1), 120.

Жураев, С. Т. (2022). Оценка волокна гибридов хлопчатника, выращенных в различных регионах Узбекистана. Министерство сельского хозяйства и продовольствия Республики Беларусь учреждение образования «Гродненский государственный аграрный университет», 1(52-55), 5.

Djonibekova, NE, Jo'raev, ST, Inoyatova, MH (2022). Effect of bap concentration and content of food environment on "in vitro" regeneration of rizamat (vitis vinifera l) cultivar. European Journal of Agricultural and Rural Education (EJARE), 3(2), 75-78.

Joraev, S. T., Ismoilov, A. A., Dilmurodov, Sh. D. (2022). Yasmiq nav va tizmalarining o'suv davri. Xorazm Ma'mun Akademiyasi, 22(6), 5-11.

Joraev, S. T., Raimova, D. (2022). Взаимосвязь периода вегитации линий хлопчатника с Некоторыми хозяйственно-ценными признаками в зависимости от регионов возделывания. Tafakkur manzili ilmiy-uslubiy jurnali, 1(1), 4-14.

Juraev, S. T., & Rakhmatullayeva, R. A. (2023). Organization of Primary Seeding of Pumpkin (Cucurbita Pepo L.) Orbita Variety. Web of Agriculture: Journal of Agriculture and Biological Sciences, 1(7), 35-43.

Juraev, S. T., Shaikhova, D. D., & Akhatov, X. X. (2023). Effectiveness of Creating Vitamin-Rich Local Varieties of Lemon. Web of Agriculture: Journal of Agriculture and Biological Sciences, 1(7), 1-7.

Jurayev, S. T., & Karimov, R. A. (2023). Selecting Initial Breeding Sources for Morning Varieties from The Potato Variety Sample Collection. Web of Agriculture: Journal of Agriculture and Biological Sciences, 1(6), 7-12.

Juraev, S. T., & Sobirova, D. Z. (2023). Assessment of the value characteristics of local" sochilmas" and" nafis" varieties of soy. Galaxy International Interdisciplinary Research Journal, 11(9), 65-71.

Jo'raev, S. T., Mirzaeva, B. K., & ugli Shukurov, A. A. (2023). Correlationships between value-economic traits in different ecological areas of new cotton ranges. Galaxy International Interdisciplinary Research Journal, 11(7), 178-184.

Turdiqulivich, J. S., Nazarovna, B. N., & Bobokulovna, J. M. (2023). Selection of High Photosynthetic Productivity Of Broad Bean (Vicia Faba L.) Lines. Diversity Research: Journal of Analysis and Trends,

1(4), 6-9.
Ismoilov, A. A., & Jurayev, S. T. (2023). Selection of varieties and ranges of lens (lens culinaris) with high grain yield and high protein content. European International Journal of Multidisciplinary Research and Management Studies, 3(05), 157-162.
Juraev, S. T. (2023). Correlation relationships between the main value-economic characteristics of cotton grown in different regions of Uzbekistan. Open Access Repository, 9(2), 131-137.
Juraev, S. T., Shukurov, A. A., & Jabborova, N. O. (2022). Analysis of value-economic characters of cotton introgressive hybrids in different soil-climate conditions in Uzbekistan. Galaxy International Interdisciplinary Research Journal, 10(11), 828-835.

SALINATION OF SOILS

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ABSTRACT

Saline soils include soils that contain mineral salts in amounts harmful to plants. Crushing of agricultural crops begins when the amount of salt in the profile exceeds 0.25% of the soil mass. In arid desert and semi-desert zones without deep soil moisture, salt accumulation occurs as a result of their biogenic accumulation, weathering, soil formation, as well as impulse formation (wind passage). it can. In the semi-desert and desert areas, there are favorable conditions for the formation of sodium sulfates and chlorides, gypsum and nitrates. Sometimes soda formation and the formation of soils with a soda type of salinity can occur. Saline soils are divided into low, medium and high salinity, as well as saline, salty, malty. It is 0.25-0.4% in water in slightly saline soils, 0.4-0.7% in medium salinity, and 0.7-0.1% in strong salinity.

Keywords: *Saline soils, Salt redistribution, Salt marshes, Salinity composition, Malt semi hydromorphic soils, etc.*

INTRODUCTION

Saline soils do not have a continuous distribution, but are found in separate places among the main soil types and form complexes with the latter. They are common in all zones, but mostly in Kazakhstan. Central Asia, Western Siberia, along the Middle and Lower Volga, in the south of Ukraine. The formation of saline soil is associated with the accumulation of salts in groundwater and rocks and favorable conditions for their accumulation in the soil. Significant amounts of salts are formed during the breakdown of rocks. The annual flow of soluble salts from the land to the ocean is 2735 million tons, and about 1 billion tons of salts enter the closed areas of the continents. During volcanic eruptions, many easily soluble salts are formed. Wind, surface water, and runoff play important roles in the redistribution of salts, but climate is the leading factor affecting the accumulation and redistribution of salts in soils. Precipitation and evaporation ratio, soil filtration properties, parent rocks, different solubility of salts. climatic conditions change strongly, in this regard, a certain zoning is clearly observed in the distribution of salts on land. The concentration of salts in groundwater and soil increases with increasing aridity of the climate. The highest concentration of salts was recorded in the desert zone, and the lowest in the steppe and forest-steppe zones. In a humid climate, with the washing type of water regime, salts are washed from the soil and therefore do not accumulate in the soil. In an arid climate and an effusion-type water regime, when evaporation is much higher than precipitation, conditions are created for the accumulation of salts in groundwater and host rocks. In these areas, mostly saline soils are common. There is a certain regularity in the qualitative composition of salts in certain natural zones, which is related to the specific characteristics of the climate, which affect the geochemical and biochemical processes of soil formation. In the forest-steppe and steppe regions, soil salinity and mineralization of groundwater are insignificant, sodium carbonates and bicarbonates dominate the composition of salts, there are sulfates that determine the soda and soda-sulfate types of soil salinity. Accumulation of soda in these zones is due to its low solubility compared to sulfates and sodium chlorides. Salt marshes include soils, in meter profile, starting from the upper horizon, most contain large amounts (more than 1%) of water-soluble salts that inhibit plant growth. Salt marshes occur along various lowlands - river plains,

lakeside lowlands, coastal lowlands, and dry lakes. On the surface of salt marshes, there are many (up to 25%) salts, which is related to the specific features of their formation. They are formed mainly in the effusion type of water regime, when evaporation exceeds the amount of precipitation. With such a water regime, there is constant evaporation of water from the soil surface and its rise from the lower horizons. If the underground water is located nearby and contains easily soluble salts, the latter will be moved to the surface along with the water, and after the water evaporates, they will accumulate in the upper horizons of the soil. The composition of salts is different and depends on the conditions of their formation... On the surface of the earth, chloride-sulfate salt marshes containing NaCl and Na2SO4 are found more often than others. In salt marshes with NaCl salinity, the surface is covered with crust. Cultivated plants do not grow in salt marshes. The most harmful for them is soda salinization of the soil, when there is a large amount of soda on the surface of the salt marsh. Solonetz is called soil, in which the soil absorption complex of the illuvial horizon contains more than 20% of the absorption capacity of exchangeable sodium. Salt flats are common in patches from several meters to several kilometers in different soil zones. They are often located among light chestnut soils. In the upper horizon of solonets there is an insignificant amount of easily soluble salts, and below it lies an illuvial horizon with a lot of exchangeable sodium. The amount of sodium exchanged among absorbed cations affects the physical and physico-chemical properties of soils. Salt beds are formed when salts are washed from the upper horizons of saline soils with high sodium salts. The influence of groundwater determines the alternation of summer salinization (the rise of salts through capillaries along with water) and autumn-winterspring salinization processes. Decomposition of plant residues (wormwood, salt, etc.) leads to biogenic accumulation of sodium and sodium salts enter the soil during precipitation. atmospheric precipitation... During the formation of solonetza, the amount of sodium salts remains high enough, but below the coagulation threshold, to displace some of the absorbed Ca and Mg with sodium from the soil absorbing complex conditions are created.

The name of salt marshes is determined by the types of zonal soils located between them... According to the conditions of formation, each type of solonets soils is divided into three subtypes: 1) meadow, 2) meadow-steppe and 3) steppe. Saline soils are characterized by poor agrophysical and agrochemical properties and low natural fertility. Due to the swelling of the Solonets horizon, they conduct water poorly, and in the spring, water stagnates for a long time in the plates of Solonets soils. This delays field work. Because the soil adheres strongly to plow waste, wet sals are difficult to grow, and dry sals are not well grown due to their high density and hardness. These soils contain little moisture available to plants. Such unfavorable characteristics are explained by the high amount of exchangeable sodium in the illuvial horizon, which can be up to 40% or more of the assimilation capacity. Salt lickers have an alkaline or strongly alkaline reaction. Crustacean and small salt mints have the least favorable agrotechnical properties. Malts belong to the group of semi-hydromorphic soils... They are distributed in forest-steppe and steppe zones and are found in closed depressions under meadow, meadow-swamp vegetation and swamp forests.

A characteristic feature of malt and saline soils is the presence of amorphous silicic acid, which dissolves in a 5% solution of caustic potash in the upper horizons. Malting and the formation of free silicic acid occur under conditions of increased soil moisture and leaching. Such conditions are usually created in various lowlands (birch-aspen groves, hearths, rivers). The malt profile varies dramatically across genetic horizons. Distinguish the following subtypes of malts: meadow-swamp, meadow, meadow-steppe and soda. Agricultural use... Field, vegetable and fruit crops differ in relation to soil salinity.

The most resistant to salinity are beets, moderately resistant - grains, tomatoes, cabbage, potatoes, carrots, unstable - sunflowers, legumes, radishes, onions, garlic, cucumbers. From fruit crops, stone fruits are less resistant to salinity, and pomegranate fruits are less resistant. But salt-tolerant plants also tolerate relatively low salt concentrations. Therefore, in order to make saline soils suitable for arable land, they are pre-washed (from 2 to 18 thousand tons of water are used per hectare). Flushing salt water is removed through drainage pipes. Salt marshes in rainfed farming zones are used as pasture. Cultivation of salt lilacs is carried out in different ways, depending on their properties, the depth and area of the suprasolonets horizon. The thickness of the suprasolonets horizon of small and medium-sized solonets soils of the chernozem zone, located in small spots, increases with grazing. For this purpose, the surrounding non-saline soils are pulled into the depression of the solonets with the help of lifting machines.

Then the field surface is leveled. The most effective way to grow salt plants is gypsum, that is, the introduction of gypsum (from 3 to 25 tons per hectare is used). After gypsum plastering, deep drilling is carried out to mix gypsum, suprasolonets and solonets horizons. Added calcium displaces exchangeable sodium from the soil uptake complex (AUC). You may also be interested: Salinity is not only a disease that causes a lot of suffering to people, it kills the living soil, makes it sterile. Soil salinization can occur due to natural causes (the formation of salt marshes and salt marshes), as well as improper irrigation of agricultural land. Only a few vegetable growers water their gardens and fields from natural water bodies or very deep artesian wells with good water quality. All other owners with wells, shallow wells, use underground water, the so-called vyerkhovodka, to irrigate their beds.

The water in the upper horizon is very salty. It contains various proportions of carbonate, sulfate, chloride compounds, salts of calcium, magnesium, iron, sodium and other elements, the total amount of which can vary from 0.5 to tens of g/l. In addition, the composition and concentration of salts changes throughout the year. The water is richest in salts in August-September, in May their quantity and concentration are significantly reduced - winter moisture is diluted. Water with a salt content of up to 0.5 g/l is good for irrigation, from 0.5 to 1 g is allowed, from 1 to 3 g is dangerous for plants, and all agrotechnical and can be used very carefully with reclamation activities and activities. If the water contains more than 3 g / l of dry salts, it is not suitable for irrigation. To determine the quality of water, you need to take samples to the laboratory. And the total amount of salt can be determined at home: you need to evaporate a certain amount of water, then weigh the dry residue.

A simpler and more civilized way is to use an electronic salt meter, which allows you to determine the salt content of water with an accuracy of milligrams per liter and whether it is suitable not only for irrigation, but also for drinking (it is known that highsalt drinking water is not recommended). In most areas, it is obvious that the water is too mineralized. This is also confirmed by the measurement in the teapots. Natural water contains salts from 300 mg/l to 2 g/l. With simple calculations, you can determine how much harmful salts enter the garden with irrigation. If we take an average amount of salt of 1 g / l, 10 times a season with full irrigation and an irrigation rate of 20 l / m 2, the soil will receive 200 g of unnecessary salts per year. And for 5 years of watering - 1 kg. And this is without taking into account the unused residues of mineral fertilizers, mineralized dead organic matter (you can accurately determine the total mineralization of water for irrigation using a salt meter or evaporation). The basis of productivity is when humus is lost, when mineralization occurs, when soil moisture is tied up, when the physical properties of the soil become unfavorable for plants, when the activity of soil organisms is stopped. Although, in fact, some plants have a high resistance to irrigation with saline water, the decrease

in productivity is mainly due to the deterioration of the physical properties of the soil, capillary blockage, excessive density, impermeable roots, associated with poor gas and plant impermeability. moisture exchange. The data obtained in the Baltic States indicate the robustness of the plant reserves manifested in the sandy soil. And watering fertile chernozems with saline water is strictly not recommended. By the way, it should be noted that different salts have different effects on the acidity of the soil, its pH level, and therefore this parameter should be taken into account, especially in regions with a high salt content in water. I also encountered a similar phenomenon in my garden. My water for irrigation is not of the best quality, but it was necessary to grow and understand something. There was no choice. We had to water with everything we had. But at the same time, he tried to solve the problem in some way: he talked with experts, experienced vegetable growers, changed mountains and studied scientific literature, not to mention submitting newspapers and magazines. I did not try in vain. I found what I was looking for - several methods of growing vegetables without irrigation, in particular, technologies that prevent salinity, revitalize the soil with no or minimal irrigation, and obtain a marketable product. In addition, using many of his own developments, he created and mastered a low-cost, comprehensive method of growing vegetables without irrigation. It consists of several technological operations. With its help, without watering, a tomato crop was obtained with 2-2.5 kg of tomato fruits per bush at a planting density of 400 pieces. per hundred square meters. With his project, he took part in the All-Ukrainian business plan competition, where he won one of the prizes. Agriculture against salinity: The problem of soil salinity in vegetable gardens can be easily solved by our own efforts. Of course, pour the fields with a meter layer and wash clean water is not realistic for a private trader. But there are alternative methods. If you need to water your gardens, it is better to collect water in barrels, containers, and ponds in sufficient quantity rather than from wells. Mineralized water settles for 2-3 days. The process begins with the precipitation of salts. In the upper, 70-centimeter water layer, after 2-3 days, 30% of the original amount of minerals remains, and the lower layers become more saturated. The same applies to water bodies, rivers, canals. Irrigation pumps should be installed to irrigate gardens with a higher, less saline layer of water. In order to avoid secondary salinity, it is necessary to water the beds infrequently, but abundantly, deeply moistening the soil. Surface irrigation is harmful, because the water soaked in the upper layer of the soil evaporates quickly, and all the salts remain there. This means infrequent and abundant watering with forced loosening of the soil. In saline areas, it is necessary to apply organic fertilizers in the form of humus, manure, compost every year. Organic substances are able to cure this disease (salt deposition). Normal manure contains a complete set of elements that restore fertility: stimulators, enzymes, vitamins, microorganisms that have a multifaceted effect on the soil, as a result of which it is more resistant to changes in the response of the environment. display ability is restored, heavy sticky soils are lightened, sandy soils. connected. The soil will have a fine-grained structure with optimal air retention, or rather, restore it. One of the main means of combating salinity is the introduction of gypsum for autumn digging. Gypsum introduced into the soil, not construction, but natural, quarried (30 kg per hundred square meters), helps to improve its physical properties, to form an agrotechnically valuable structure - exchangeable sodium gypsum is replaced by calcium, and it is squeezed into deep underground layers. Siderates have the ability to bind and remove salt compounds: mustard, alfalfa, as well as wheat, barley. During their growth, the root exudates partially demineralize the soil, and they use some harmful compounds to grow the above-ground mass. These plants have a strong root system that penetrates deep into the soil. After green manure, a whole network of underground canals remains in place of rotting roots. Such natural drainage occurs, through which salts are washed into the deep layers of the soil by precipitation. Vegetables have the ability to obtain mineral elements only from the soil. Therefore, it is necessary to introduce non-irrigated beet crops into crop rotation in irrigated gardens. The benefit is two-fold: you can get a decent harvest and clear the land. To prevent salinity, in irrigated garden areas, it is

necessary to leave part of the beds without irrigation for one season. And it is not necessary to keep the black steam, there you can grow salt and drought-resistant plants - melons, watermelons, pumpkins, beans, beets, late cabbage. But it is better not to allow the soil to become salty and dry, then there will be fewer problems and the yield will be higher.

CONCLUSION.

I hope my recommendations will be useful for you. If you have any questions on the topic of soil salinity, write in the forum. Saline soils are soils with an abundance (more than 0.25%) of easily soluble mineral salts in water. They are found mainly in the southern arid regions of many countries (Pakistan, India, China, Egypt, etc.), often in patches between uninhabited soils. The area of wages in the USSR is 52.3 million square meters. yes, or 2.4% of all soils in the country; they are widespread in the south of the Ukrainian SSR, along the Volga, in Central Asia (half of all arable land is saline) and other regions. They mainly contain sulfate (sodium sulfate, calcium and magnesium), chloride (sodium, calcium and magnesium chloride) and carbonic (sodium in two forms: carbonate or common soda and bicarbonate or baking soda) acids. Sodium and calcium salts of nitric acid are sometimes found in salmon. The abundance of water-soluble salts in the soil leads to the thinning of the vegetation cover and the emergence of a special group of wild-growing plant species. hodgepodge or halophytes adapted to life in the west.

REFERENCES

1 Course of economic theory: study guide for students of higher education institutions (in Russian). Head of the authorship team and editor - A.V. Sidorovich; M.V. Lomonosov Moscow State University. - Moscow: "Delo i syervis" publishing house, 2007. - 1040 p.

2 Tax Code of the Republic of Uzbekistan. Tashkent, 2008.

3 National report on the state of land reserves of the Republic of Uzbekistan and their use (19912008).

4. Caloydinov, C. K. (2021). Creating a technical and economic mechanism for reducing energy consumption in cotton gins. "Academic research in educational sciences", 2(9), 886-889. https://doi.org/10.24412/2181-1385-2021-9-886-889

5. Caloydinov, C. K. (2021). Creation of feasibility studies to reduce energy costs in ginnyeries. "Economics and society", 9(88), 147-149.

6. Caloydinov, C. K. (2021). Educational credits in Uzbekistan. "Economics and society", 12(91), 470-472.

7. PREIMUShchESTVA KACHESTVENNOY OBRABOTKI POCHVY RANNEY VESNOY I PERED POSEVOM. N.D. Khaydarova Sh.N. Sadullaev https://doi.org/10.5281/zenodo.6044544

8. Bukharsk engineering and technological institute. Republic of Uzbekistan. Sadullaev, Sh. N., and N. D. Khaydarova. "CULTIVATORY DLYa GLUBOKOGO POChVY." Academic research in educational sciences 3.1 (2022): 170-173.

9.GALAXY INTERNATIONAL INTERDISCIPLINARY RESEARCH JOURNAL (GIIRJ)ISSN (E): 2347-6915Vol. 9, Issue 12, Dec.(2021)113PREPARATION MACHINE FOR GREENHOUSES X.R.Gaffarov Bukhara Institute of Engineering Technology. Republic of Uzbekistan: Sh.N.Sadullaev Bukhara Institute of Engineering Technology. Republic of Uzbekistan.

AUTO TRANSPORT VEHICLES DURING OPERATION DETERMINATION OF THE COMPOSITION OF EXHAUST GASES

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ABSTRACT

Currently, vehicles are considered to have the highest index among the factors affecting environmental change, in this article, the composition of exhaust gases emitted by motor vehicles during operation, their harmful effects on the environment and ways to eliminate them are described. , ecological and environment-damaging factors, their legal prevention and solution, as well as conclusions and suggestions for the above problems.

Key words: *automobile, toxic gases, carbon monoxide, nitrogen oxides, waste gases.*

INTRODUCTION

The main source of exhaust gases (or used gases) is the internal combustion engine - these are substances with different chemical and physical properties in the form of inhomogeneous gases as a result of complete or incomplete combustion of fuel, air, aerosols and various micromixtures. and goes from the engine cylinder to the exhaust system. They contain more than 300 different substances, many of which are toxic. Carbon monoxide, nitrogen, and hydrocarbons are the main toxic components of exhaust gases from car engines. In addition, restricted and unrestricted hydrocarbons, aldehydes, carcinogenic substances, soot and other substances are released into the atmosphere together with waste gases. The approximate composition of gases coming out of nuclear reactors is presented in Engines running on ethylated gasoline contain more lead in exhaust gases, and soot in engines running on diesel fuel. Carbon monoxide (SO-is gas). Transparent, odorless, toxic, light compared to air, poorly soluble in water.

Table 1. Composition of exhaust gases

Component of waste gases	Amount by volume, %		Comment
	Engines		
	gasoline	diesel	
Carbon onoxide	0.1 – 10,0	0,01 - 5,0	toxic
Non-toxic hydrocarbons	0.2 - 3.0	0.009 - 0.5	toxic
Aldehydes	0 - 0.2	0.001 - 0.009	toxic
Sulfur oxide	0 - 0.002	0-0.03	toxic
Body, g/m	0-0.04	0.01-1.1	toxic
Benzopyrene, mg/ m^3	0.01 - 0.02	Do 0.01	toxic

Carbon monoxide is a product of incomplete combustion of fuel, and it burns with a bluish flame when carbon dioxide is produced in the air. In the combustion chamber of the engine, SO is formed as a result of insufficient fuel injection, cold flame reaction, combustion of fuel with insufficient oxygen and dissociation of carbon dioxide at high temperatures. During postignition combustion (after the high end point, during the expansion stroke), carbon monoxide is burned by mixing with oxygen when dioxide is formed. In this case, SO combustion continues in the outlet pipeline. It should also be taken into account that when operating diesel engines, the amount of SO in exhaust gases is low (about 0.1-0.2 percent), so the amount of SO is determined only for gasoline engines. Nitrogen oxides (NO, NO2, N2O, N2O3, N2O5, later - Nox). Nitrous oxide is one of the most toxic components of car exhaust. Under normal atmospheric conditions, nitrogen is like an inert gas. At high pressure and high temperature, nitrogen actively reacts with oxygen. 90 percent of NOx in engine exhaust gases is nitrogen oxide NO, which is then oxidized to nitrogen dioxide NO2 in the atmosphere.

Nitric oxide NO affects the tear film of the eye, damages the human lungs, because when they move in the respiratory tract, they interact with moisture in the upper respiratory tract, forming nitric and nitrous acids. Usually, poisoning of human body with NO x does not occur suddenly, it happens gradually, there are no means to neutralize them. Nitrogen oxide (No.Ohemioxide, happy gas) is an aromatic gas that dissolves well in water. It has a narcotic effect. NO2 (dioxide)-leaking is involved in the formation of yellow liquid, smoky haze. When the concentration of nitrogen oxide in the air is 0.5-6.0 mg/m3, it has a direct toxic effect on trees. Nitric acid causes severe rusting of carbonaceous pods.Hydrocarbons (CnHm-ethane, methane, ethylene, benzene, propane, acetylene, etc.). Hydrocarbons are organic compounds whose molecules consist only of carbon and hydrogen atoms and are toxic substances. Exhaust gases contain more than 200 different hydrocarbons with aliphatic and aromatic rings. In the molecule of aromatic hydrocarbons, one or more rings consist of 6 carbon atoms and are interconnected by simple or double bonds. It has a fragrant smell. Due to the presence of SN content in the used gases of the engine, the mixture in the combustion chamber is not homogeneous, therefore, the flame extinguishing occurs on the walls of the cylinder where the fuel mixture is located, and this is explained by the interruption of the chain reaction .

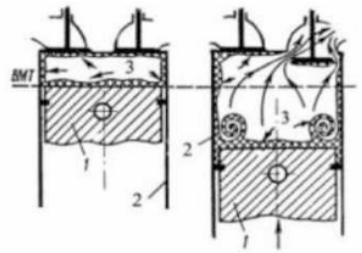

Figure 1. Form of appearance of SN m in waste gases: 1- piston; 2nd sleeve; 3- compound layer on the wall.

The composition of incompletely burned SN leaving with waste gases contains several hundreds of chemical compounds, some of which have an unpleasant smell and are the cause of many chronic diseases. Gasoline fumes are also toxic because they are also hydrocarbons. The average daily concentration of gasoline vapors is 1.5 mg/m3. SN in exhaust gases increases during throttling and forced idling. When the engine is operated in the above mentioned mode, the process of mixture formation is disturbed, the combustion speed decreases, the ignition worsens, as a result of which more waste comes out. Hydrocarbons appear in the regions of the cylinder where the rich mixture is formed, where there is not enough oxygen and on the relatively cold walls. They actively participate in the

formation of biologically active substances, these biological substances irritate the eyes and nose, and cause them to get sick. In addition, hydrocarbons cause great harm to the flora and fauna. Hydrocarbon compounds have a narcotic effect on the central nervous system, can cause chronic diseases, some SNs have toxic properties. Hydrocarbons and nitrogen oxides create conditions for the formation of smoky fog (smog) in certain meteorological conditions. Smoky fog (smog). Smoky fog (smog-smoke, fog-fog) is a toxic fog that forms in the lower layer of the atmosphere, which is caused by toxic substances from production enterprises, gases from automobile transport, and emissions from other devices in unfavorable weather conditions. They consist of smoke, fog, dust, and partly liquid aerosol. It appears in industrial cities under certain meteorological conditions. The interaction of harmful gases entering the atmosphere creates new toxic gases. At this time, photosynthesis, oxidation, regeneration, polymerization, condensation, catalysis and other reactions take place in the atmosphere. Nitrogen oxides, hydrocarbons, aldehydes and other substances react with the sun's ultraviolet rays to form photooxidants as a result of complex photochemical processes. Nitrogen dioxide concentrations of NO2 can produce large amounts of atomic oxygen, which in turn forms ozone and reacts with pollutants in the atmosphere. The presence of formaldehydes, higher aldehydes and other hydrocarbon compounds in the atmosphere creates the ground for the formation of new peroxide compounds together with ozone.

Smog can lead to opening of aqueous layers of the eyes, headaches, runny legs, bleeding, and exacerbation of respiratory diseases. Visibility on roads deteriorates, which leads to an increase in traffic accidents.Smog is very dangerous for human life. For example, the smog in London in 1952 was considered a catastrophe, because four thousand people died in four days of smog. The presence of chlorine, nitrogen, and sulfur compounds in the atmosphere creates strong toxic compounds and acid vapors, which dry up trees, damage and decay limestone ancient monuments.

Effects of waste gases on the environment and people

Exhaust gas is a work product developed in the engine. It is an incompletely burned hydrocarbon fuel and an oxidation product. The emission of waste gases causes an increase in the permissible concentration of toxic substances and carcinogens in the atmosphere of cities. The appearance of smog can be the cause of poisoning in a closed environment.

Figure 2. Smoke coming from the tailpipe of a truck

The amount of exhaust gases emitted from cars The amount of gases emitted from cars is determined by the amount of fuel consumption. Fuel consumption is normalized in relation to the distance traveled and is indicated by the car manufacturer. Estimated fuel consumption can be determined depending on the volume of exhaust gases coming out of the car's tailpipe. When one kg of gasoline burns, 16 kg of different gas mixtures are produced.

- k — carburetor engine
- i — injection engine
- D — diesel engine
- gasoline +20C density from 0.69 to 0.81 g/cm3
- the density of diesel fuel at +20C does not exceed 0.86 g/cm3 according to GOST 305-82

The composition of car exhaust gases		
	gasoline	diesel
N2, ob. %	74 - 77	76 - 78
O2, ob. %	0,3 - 8,0	2,0 - 18,0
H2O (steam)ob. %	3,0 - 5,5	0,5 - 4,0
CO2, ob. %	0,0 - 16,0	1,0 - 10,0
CO*, ob. %	0,1 - 5,0	0,01 - 0,5
Nitric oxide*, ob. %	0,0 - 0,8	0,0002 - 0,5
Hydrocarbons*, ob. %	0,2 - 3,0	0,09 - 0,5
Aldehydes*, ob. %	0,0 - 0,2	0,001 - 0,009
Saja**, g/m3	0,0 - 0,04	0.01 - 1,10
Benzpyrene-3,4**, g/m3	10 - 2010'6	10*10'6

Ways to reduce toxic waste

The incentive to reduce the volume of toxic waste is primarily to encourage the reduction of fuel consumption.The amount of waste (excluding fuel consumption and time) is greatly influenced by the organization of car traffic in cities (most of the waste comes from traffic jams and traffic lights). When the movement is well organized, it is possible to use low-power engines at lower speeds.
- the use of passenger gases or natural gases as fuel can reduce the hydrocarbon content of exhaust gases by more than 2 times. The main disadvantage of natural gas is that it travels relatively less, which is not so important in urban conditions;
- in addition to the fuel composition, the condition and adjustment of the engine affects the toxicity of exhaust gases (mainly in diesel engines, the amount can increase up to 20 times, nitrogen oxide in the carburetor can increase up to 1.5-2 times);
- reduced exhaust gases (reduced fuel consumption) in engines of modern design with an injector supply system. In these engines, a constant stoichiometric mixture of unleaded gasoline is created, a catalyst is installed, gas engine units are driven and air cooled, and mixed transmissions are installed. But such structures make cars more expensive. -SAE tests show that one of the ways to reduce nitrogen oxide (up to 90%) in the exhaust gases and the total toxicity of the gases is to spray water into the combustion chamber.

Finding a technical solution to environmental problems is carried out in three directions in world practice: fuel, engine and system for reducing the toxicity of exhaust gases. Compulsory analysis of each of them is required, so we outline the task with several lines. So, fuel. Meets fuel quality requirements. One of the ways to reduce the toxicity of used gas is to use compressed and liquefied gases as fuel. Almost 90 percent of gasoline engines in the Fergana Valley regions have been converted to gas cylinder

cars, and more than 95 percent of gas cars are designed for methane gas.

The most promising is the use of hydrogen as a fuel. In this case, the engine's energetic and environmental performance will improve dramatically. The high heat of combustion of hydrogen is 120 MJ/kg and is much higher than the mass heat of other fuels: 45 MJ/kg of gasoline and 42.7 MJ/kg of diesel fuel. However, due to the low density of hydrogen, its simple energy characteristics are low compared to petroleum fuels. The heat release capacity of the hydrogenair mixture is 15% lower than that of the gasoline-air mixture and 10% lower than that of the alcohol-air mixture.

Hydrogen is a type of fuel with great prospects for engines, because it has an inexhaustible base of raw materials, a very high heat of combustion (its heat of combustion is 118045 kJ/kg), as a result of combustion, toxic substances (except nitrogen) and does not deteriorate the properties of the oil The high diffusion coefficient of hydrogen makes it possible to create a homogeneous mixture even when the fuel is delivered to the cylinder in any way, to distribute it evenly to the cylinders in all engine operating modes. When burning hydrogen, no soot, soot and coke are formed, which is optimal from the point of view of corrosion of engine parts and service life. But due to the low density of hydrogen, its volumetric energy capacity is relatively low. Combustion of a hydrogen fuel mixture is 6 times faster than the combustion rate of a gasoline-air mixture. A working mixture of hydrogen and air in a ratio of 1:10 is relatively effective. Hydrogen is characterized by a small lower flammability limit of the hydrogen mixture (the ratio of hydrogen and air is 1:25) and a very low ignition energy (12-14 times less than gasoline). These propertiesof hydrogen cause spark formation in the pipes of the introduction of the working mixture, ignition of the working mixture in the cylinders before the specified time, the intensity of the combustion process, and detonation. As a result of these conditions, the work process in the carburettor engine is disturbed. In addition, the issue of hydrogen storage and placement in the car is one of the problems that must be solved. For example, if the mass of the fuel tank is 13 - 15 kg in order to store enough fuel (gasoline or diesel fuel) to travel a certain reserve distance, then 19 The mass of the vessel system for storing compressed hydrogen intended for 1300-1400 kg For these reasons, hydrogen is considered as a replacement material for petroleum-derived liquid fuels in the long term. Currently, work is being carried out on the use of hydrogen as an additive to reduce the consumption of liquid fuel. Today, a promising and effective strategic environmental initiative is certainly to make changes in the design of engines. The widespread use of injection engines, electronic control systems and the improvement of the working process of the engine have raised economy and environmental indicators to a new level of quality. If we look at the concept of inventing an ecological engine, 30 years of research in world practice have only offered various forms, interesting projects and structures, but all of them have been turned into metal. An example of a rotor-piston engine can be given as an example, which differs from the classic IYOD in terms of the toxicity of exhaust gases. Currently, these engines are produced at the Volzhsk plant only for installation on special equipment.

Currently, hybrid power units are used, which are the most efficient in terms of economy and environmental parameters: they work with an internal combustion engine on highways, and in urban areas with an electric engine. Switching to one or another engine type is carried out automatically depending on traffic and road conditions. The third way to reduce the toxicity of exhaust gases is to install additional devices in the exhaust pipes, i.e. afterburners, which are toxin neutralizers equipped with expensive catalysts. An additional device increases the price of the car, reduces its power and economy, we did not achieve economy and environmental friendliness with the above two methods, so we have to use different types of exhaust gas reducing devices. In addition, one of the ways to ensure

eco measurement is to increase the engine efficiency, reduce the tire vibration resistance, reduce the weight of the car using new materials, etc.

Summary:

Currently, in order to improve the resource saving and environmental performance of cars, the cylinder deactivation method is used in engine idle operation. The use of this method is especially good in cities, because in urban conditions there is a traffic light or a pedestrian crossing every 500-1000 meters, and the toxic gases released from it when cars stop have a toxic effect on the surrounding enterprises and institutions. shows. In this method, one or two cylinders are automatically turned off when the engine idles at pedestrian crossings, traffic lights, and parking lots, while the other two cylinders provide the engine with idle power. The disadvantage of this method is that the algorithm for turning off the cylinders is not developed, so there are some shortcomings in which cylinders are turned off and when.

Analysis of the problem of saving resources and ensuring environmental safety in the vehicle complex allows us to formulate a work goal, to achieve it, we will perform the following tasks:

- development of a method of improving the fuel-efficient and environmental performance of a modern car with an engine equipped with an electronic injection system;
- development of the methodology of differentiated fuel consumption of the car, taking into account the method of driving the engine in the mode of driving and operating conditions;
- development of a methodology for researching the effect of the proposed engine control method on the operational and standard fuel consumption of the car, the toxicity of the produced gases, and the vibration activity;
- development of a method of controlling the engine by turning off the cylinders of modern cars during operation; - to study the influence of the rational algorithm of engine idle control on vibroacoustic, fuelsaving and environmental indicators in operating conditions.

REFERENCES

1. Masodikov, Q. X. O. G. L., Khujamkulov, S., & Masodikov, J. X. O. G. L. (2022). EXPERIMENTAL METHOD FOR MANUFACTURE OF AUTOMOBILE TIRES AND UTILIZATION OF OLD AUTOMOBILE TIRES. Academic research in educational sciences, 3(4), 254-259.

2. Meliboyev, A., Khujamkulov, S., & Masodikov, J. (2021). Univer calculation- experimental method of researching the indicators of its toxicity in its management by changing the working capacity of the engine using the characteristics. Economics and society, (4-1), 207¬210.

3. Khodjaev, S. M. (2022). The main problems of organization and management of car maintenance and repair stations in the Ferghana region. Innovative Technologica: Methodical Research Journal, 3(9), 1-

4. Khujamkulov, S. U. O. G. L., & Masodikov, Q. X. O. G. L. (2022). FORMATION OF TASKS ON MONITORING THE OPERATIONAL CHARACTERISTICS OF MOTOR TRANSPORT VEHICLES. Academic research in educational sciences, 3(4), 503-508.

5. PREIMUShchESTVA KACHESTVENNOY OBRABOTKI POCHVY RANNEY VESNOY I PERED POSEVOM. N.D. Khaydarova Sh.N. Sadullaev https://doi.org/10.5281/zenodo.6044544

6. Bukharsk engineering and technological institute. Republic of Uzbekistan. Sadullaev, Sh. N., and N. D. Khaydarova. "CULTIVATORY DLYa GLUBOKOGO POChVY." Academic research in educational sciences 3.1 (2022): 170-173.

7.GALAXY INTERNATIONAL INTERDISCIPLINARY RESEARCH JOURNAL (GIIRJ)ISSN (E): 2347-6915Vol. 9, Issue 12, Dec.(2021)113PREPARATION MACHINE FOR GREENHOUSES X.R.Gaffarov Bukhara Institute of Engineering Technology. Republic of Uzbekistan: Sh.N.Sadullaev Bukhara Institute of Engineering Technology. Republic of Uzbekistan .

LANGUAGE AND SPEECH ASPECTS OF ORAL AND WRITTEN SPEECH IN THE TEACHING OF RUSSIAN AS A FOREIGN LANGUAGE

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ABSTRACT

Mastering the methodology of teaching Russian as a foreign language is becoming an important condition and an integral part of preparing students of pedagogical universities of Uzbekistan for their future careers.The purpose of the article is to describe in detail the linguistic and verbal aspects of teaching oral and written communication in Russian as a foreign language, as a new language.

Keywords: *Methodology, pedagogy, foreign language, oral speech, written speech, listening comprehension, grammar, lexical units, listening mechanism, reading techniques.*

INTRODUCTION

The methodology of learning the Russian language is aimed at the formation of a communicative multilingual person, who has the principles of assessment specific to different cultures, and who has a pedagogical relationship in the process of teaching the Russian language as a foreign language [2, 188]. Therefore, in this study, methodological approaches used for the formation of each skill were studied separately. Studying pronunciation is an aspect of the practical course of teaching Russian as a foreign language, aimed at the formation of listening and pronunciation skills (correct perception of heard language elements, connecting it with meaning and appropriate repeatability, speed, stability).

Phonetic skills can be considered formed if phonetic (meaningful) speech hearing is developed and connections between auditory-acoustic, motor and phonemic aspects of speech are established, as a result of which pronunciation is sufficiently accurate. The requirements for the level of listening and speaking skills depend on the goals and conditions of teaching, in some cases they are limited to determining acceptable pronunciation. However, it should be noted that phonetics and its teaching is a very large field, and it is appropriate to organize it as a methodical guide. That is why we decided to make this network the subject of our key research. Another area that supports language skills is lexicology.Lexical exercises are called communicative exercises, the content of which consists of the student's practice of performing situational conditional speech activities based on introduced and reduced lexical units.

Vocabulary activation is the final stage of working on new words. The concept that it is necessary to repeat an average of 15 to 25 ranks for permanent mastery of a lexical unit is preserved in traditional lessons. But innovative methods show that constant repetition of the word itself does not ensure that the word remains in the student's memory. The main method of activation is the introduction of new vocabulary in all types of immediate and subsequent exercises, but the main thing is to use them in texts and speech activities.Learning a new language, developing speaking skills is mainly done through listening, so listening should be developed better than other skills, but in fact, this process causes the greatest difficulties for students. It is no coincidence that scientists associate listening with fundamental skills [7], they include it in the category of active thinking processes, because listening is aimed at perceiving, recognizing and understanding new speech messages each time, and it is creative

combination. includes [10, 184]. The listener must combine information from various sources: phonological, prosodic, lexical, syntactic, semantic, pragmatic - this happens by receiving information.The main goal of teaching a foreign language is to teach speech as a means of communication. Oral speech occupies a special place in live foreign language teaching: as a rule, it is both the main stimulus for language learning and the main criterion for the level of language proficiency. Normal oral communication implies a very quick reaction and development of speech, which is carried out without corrections and preliminary discussions. In order for speech activity to take place, there must be at least two partners (sender and receiver of speech), one of whom "produces" the speech, the other perceives it, understands it and "produces" the answer. Therefore, we can say that speech is a unity of two interrelated processes: the speech process and the listening process.

It is important for future teachers to have knowledge about the methodological theory of teaching Russian as a foreign language in terms of its main disciplines: pedagogy, psychology, linguistics, sociology, cultural studies, as well as the formation of knowledge about linguodidactics, grammar, lexicology. .

REFERENCES

1. Jumanova D.R., Practice of the Russian language course, textbook -T 2014-123 b
2. Mitrofanova, O.D. Traditional and new in the methodology of teaching Russian as a foreign language In: A. N. Shchukin (ed.-comp.) Language and culture in a philological university. Actual problems of study and teaching: Collection of scientific papers. Moscow: GIRYA them. A.S. Pushkin; Philomatis. 2006.
3. Badanina, I.V. Izuchenie actualnykh protsessov grammatiki sovremennogo russkogo zyzyka v inostrannoy auditorii / I.V. The body. - M., 2005.
4. Bayamanova R.G. Organization of a communicative orientirovannogo lesson of the Russian language. Uchebno-methodicheskoe posobie. Karaganda, 2006.
5. Goykhman O.Ya., Nadeina T.M. Rechevaya communication: Textbook. - 2-e izd., pererab. i dop. - M., 2007.
6. Kostomarov V.T., Mitrofanova O.D. Methodological guidance for teachers of the Russian language. M., 1976; 4-e izd., ispr.— M., 1988.

EMPOWERING THE FUTURE: THE ROLE OF DIGITAL TECHNOLOGIES IN SUPPORTING BUSINESS AMONG YOUNG PEOPLE

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ABSTRACT

This article explores the pivotal role that digital technologies play in supporting and empowering young entrepreneurs in their business endeavors. It delves into various aspects such as global connectivity, e-commerce, digital marketing, remote work, access to information, and fintech solutions, showcasing how these elements collectively contribute to the success of young businesses. By embracing and leveraging digital tools, the next generation of entrepreneurs can navigate the dynamic landscape of the global marketplace and shape a resilient future for business.

Keywords: *Digital Technologies. Young Entrepreneurs. Business Empowerment. Global Connectivity. E-Commerce. Digital Marketing. Remote Work. Access to Information. Fintech Solutions. Entrepreneurial Success. Online Marketplaces. Youth and Innovation. Future of Business. Technology-driven Entrepreneurship. Digital Transformation*

INTRODUCTION

In the rapidly evolving landscape of the 21st century, digital technologies have become indispensable tools for individuals and businesses alike. Among the demographic most adept at harnessing the power of these technologies are young entrepreneurs. The intersection of youth and digital innovation has paved the way for a new era of business development and economic growth. This article explores the significant role that digital technologies play in supporting and empowering young people in their entrepreneurial endeavors.

1. Global Connectivity and Market Access:

Digital technologies have transformed the business landscape by providing unprecedented global connectivity. Young entrepreneurs can now connect with potential customers, collaborators, and investors worldwide. Social media platforms, online marketplaces, and digital communication tools facilitate the creation of a global network, allowing young businesses to transcend geographical boundaries. This interconnectedness not only expands market reach but also exposes young entrepreneurs to diverse perspectives, fostering innovation and adaptability.

In the contemporary business landscape, the advent of digital technologies has dismantled traditional barriers, providing young entrepreneurs with unprecedented global connectivity and market access. This transformative aspect plays a pivotal role in shaping the success of budding enterprises and fostering a more inclusive and dynamic economic ecosystem.

Breaking Geographical Boundaries: Digital technologies have effectively erased the limitations imposed by geographical distances. Young entrepreneurs can establish connections with potential clients, collaborators, and investors from any corner of the world. Social media platforms, professional networking sites, and digital communication tools serve as bridges, enabling seamless interactions and

collaborations irrespective of physical locations.

Diverse Market Reach: The global reach facilitated by digital connectivity allows young businesses to tap into diverse markets. No longer confined to local or regional spheres, entrepreneurs can position their products or services on a global stage. This expansion not only diversifies revenue streams but also exposes businesses to varied consumer preferences, cultural nuances, and market trends, fostering adaptability and innovation.

Access to Emerging Markets: Digital technologies empower young entrepreneurs to identify and access emerging markets with greater ease. Through online research, data analytics, and market intelligence tools, businesses can pinpoint growth opportunities in previously untapped regions. This democratization of market information enables strategic decision-making and positions young enterprises to capitalize on emerging trends, giving them a competitive edge.

Elevating Small and Medium Enterprises (SMEs): Small and medium-sized enterprises often face challenges in competing with larger, established counterparts. Digital connectivity levels the playing field, offering SMEs the chance to reach a global audience without the need for extensive physical infrastructure. Online platforms, marketplaces, and e-commerce solutions enable these businesses to showcase their offerings globally, fostering a more diverse and vibrant business ecosystem.

Cultural Exchange and Innovation: The global connectivity fostered by digital technologies encourages a rich cultural exchange. Young entrepreneurs can draw inspiration from diverse cultural landscapes, infusing their products and services with innovative ideas. This crosspollination of creativity not only enriches the entrepreneurial spirit but also results in products and services that resonate with a broader, global audience.

Agile Business Models: The interconnectedness provided by digital technologies allows young entrepreneurs to adopt agile business models. The ability to quickly pivot and adapt to changing market conditions is a distinct advantage in the fast-paced global economy. Through real-time communication and data-driven insights, businesses can respond swiftly to market demands, ensuring relevance and competitiveness on a global scale.

In conclusion, global connectivity and market access driven by digital technologies are integral components of the modern entrepreneurial landscape. The ability for young businesses to transcend geographical boundaries opens up a world of opportunities, paving the way for innovation, collaboration, and sustained growth. As technology continues to evolve, the synergy between global connectivity and entrepreneurial endeavors will undoubtedly shape the future of business for generations to come.

2. E-Commerce and Online Marketplaces:

The rise of e-commerce platforms has revolutionized the way businesses operate. Young entrepreneurs can easily set up online storefronts, reaching customers 24/7 without the constraints of a physical location. Platforms like Shopify, Etsy, and Amazon provide userfriendly interfaces, enabling young business owners to manage inventory, process transactions, and build their brand online. This accessibility reduces the barriers to entry for young people aspiring to enter the business world.

In the digital era, the emergence of e-commerce and online marketplaces stands out as a transformative force, particularly empowering young entrepreneurs to build and expand their businesses. The seamless integration of technology into commerce has not only streamlined transactions but has also fundamentally altered the way young people approach entrepreneurship, breaking down traditional barriers and opening doors to a global marketplace.

24/7 Accessibility and Convenience: E-commerce platforms provide young entrepreneurs with the ability to operate their businesses 24/7, unrestricted by the limitations of traditional brickand-mortar establishments. This accessibility not only caters to a global audience across different time zones but also meets the evolving demands of a digitally connected consumer base seeking convenience in their shopping experiences.

Global Storefronts without Physical Constraints: For young entrepreneurs, the prospect of setting up a global storefront without the financial burden of physical infrastructure is a gamechanger. Platforms such as Shopify, Etsy, and Amazon empower entrepreneurs to showcase their products to a vast audience without the need for a physical presence. This flexibility reduces entry barriers and levels the playing field for startups and small businesses.

Customer Reach and Targeted Marketing: E-commerce platforms facilitate targeted marketing strategies for young entrepreneurs. Through data analytics and consumer insights, businesses can tailor their marketing efforts to specific demographics, ensuring that their products or services reach the most relevant audience. This personalized approach enhances customer engagement and fosters brand loyalty, critical factors for the sustained success of young ventures.

Streamlined Inventory Management: Digital technologies integrated into e-commerce platforms simplify inventory management for young entrepreneurs. Automated tracking systems, real-time updates, and order processing streamline the logistics of product management. This efficiency not only reduces operational overheads but also enables entrepreneurs to focus on product innovation and customer satisfaction.

Entrepreneurial Brand Building: E-commerce platforms provide young entrepreneurs with a canvas to build and establish their brands. From creating visually appealing storefronts to crafting compelling product descriptions, entrepreneurs can use these platforms to convey their brand identity effectively. Direct interaction with customers through reviews and feedback further contributes to brand authenticity and transparency.

Dynamic Pricing and Market Adaptability: E-commerce empowers young entrepreneurs to implement dynamic pricing strategies based on real-time market dynamics. With the ability to quickly adapt to market changes, entrepreneurs can remain competitive and agile. This adaptability is particularly crucial for startups navigating the unpredictable landscape of consumer preferences and market trends.

Payment Security and Fintech Integration: E-commerce platforms prioritize secure online transactions, building trust among customers. Integration with financial technology (Fintech) solutions ensures seamless and secure payment processes. This not only enhances the customer experience but also provides young entrepreneurs with the confidence to explore diverse revenue streams and payment

models.

In essence, e-commerce and online marketplaces redefine the entrepreneurial journey for young individuals, offering a platform that goes beyond mere transactions. It serves as a dynamic space where innovation, customer engagement, and business growth converge, propelling young ventures into the global marketplace with unprecedented opportunities for success. As technology continues to evolve, the synergy between e-commerce and entrepreneurship will undoubtedly shape the future of commerce, making it an exciting time for young business enthusiasts to thrive.

3. Digital Marketing and Branding:

Effective digital marketing strategies have become essential for business success. Young entrepreneurs leverage social media, search engine optimization (SEO), and content marketing to build brand awareness and engage with their target audience. The ability to create compelling online content allows young businesses to compete on an equal footing with established players, emphasizing creativity and innovation over large marketing budgets.

In the digital age, the symbiotic relationship between digital marketing and branding has become the cornerstone of success for young entrepreneurs. The ability to strategically leverage digital platforms not only enhances brand visibility but also empowers entrepreneurs to connect with their target audience in unprecedented ways. Here's a closer look at how digital marketing and branding synergize to shape the narrative and trajectory of young businesses:

Social Media as Brand Ambassadors: Social media platforms have evolved into powerful tools for brand promotion and engagement. Young entrepreneurs can leverage platforms like Instagram, Facebook, Twitter, and LinkedIn to build a brand narrative, share behind-thescenes glimpses, and directly engage with their audience. The interactive nature of social media fosters a sense of community, turning customers into brand ambassadors who actively contribute to the brand's story.

Search Engine Optimization (SEO): An integral part of digital marketing, SEO plays a crucial role in ensuring that a young business is discoverable online. By optimizing website content and structure, entrepreneurs can enhance their visibility on search engines. This not only attracts organic traffic but also establishes credibility, as consumers often associate a higher search ranking with trustworthiness.

Content Marketing for Storytelling: Content marketing serves as a powerful tool for young entrepreneurs to tell their brand story. Through blog posts, videos, podcasts, and other forms of content, entrepreneurs can communicate their brand values, mission, and uniqueness. This storytelling approach not only humanizes the brand but also resonates with consumers who seek authentic connections with the products or services they choose.

Influencer Collaborations: Partnering with influencers in the digital realm allows young entrepreneurs to extend their brand reach exponentially. Influencers, who often have dedicated and engaged followers, can introduce a brand to new audiences in an authentic way. This collaborative approach not only boosts brand visibility but also leverages the influencer's credibility to build trust with potential customers.

Email Marketing for Direct Communication: Email marketing remains a powerful tool for direct communication with customers. Young entrepreneurs can use email campaigns to share updates, exclusive offers, and personalized content with their audience. This direct line of communication not only strengthens the brand-customer relationship but also ensures that the brand remains top-of-mind for potential and existing customers.

Data Analytics for Informed Decision-Making: Digital marketing provides young entrepreneurs with a wealth of data and analytics. By closely monitoring metrics such as website traffic, social media engagement, and conversion rates, entrepreneurs can gain valuable insights into customer behavior. This data-driven approach enables informed decision-making, allowing entrepreneurs to refine their strategies and tailor their marketing efforts for optimal results.

Visual Brand Identity: The visual component of branding is accentuated in the digital realm. Young entrepreneurs can craft a distinctive visual brand identity through cohesive graphics, logos, and multimedia content. Consistent visual elements across digital platforms create a memorable brand image, contributing to brand recognition and recall among the target audience.

Agile Campaigns and Real-Time Engagement: Digital marketing enables young entrepreneurs to run agile campaigns that can quickly adapt to market trends or respond to current events. Real-time engagement with the audience through social media allows entrepreneurs to be responsive and relevant, fostering a dynamic and active brand presence in the digital space. In conclusion, the integration of digital marketing and branding forms a potent strategy for young entrepreneurs navigating the competitive digital landscape. By harnessing the power of social media, SEO, content marketing, influencer collaborations, email campaigns, data analytics, visual brand identity, and real-time engagement, young businesses can create a compelling narrative that resonates with their audience, establishing a strong and enduring brand presence in the digital realm.

4. Remote Work and Flexibility:

Digital technologies have redefined the traditional concept of work. Young entrepreneurs can assemble virtual teams from around the globe, taking advantage of diverse skill sets without the limitations of physical proximity. This flexibility not only enhances creativity but also allows for cost-effective business operations. Cloud-based collaboration management platforms tools enable and project seamless communication, fostering a dynamic and agile work environment.

The evolution of digital technologies has not only transformed the business landscape but has also revolutionized the traditional concept of work. Remote work and flexibility have emerged as key enablers for young entrepreneurs, offering a dynamic and adaptive approach to building and growing businesses. Here's an in-depth exploration of how remote work and flexibility empower the entrepreneurial journey of the younger generation:

Global Talent Acquisition: Remote work allows young entrepreneurs to assemble teams with diverse skill sets and talents from around the globe. Geography is no longer a limiting factor, enabling entrepreneurs to access a pool of talented individuals irrespective of their physical location. This globalization of talent contributes to a more innovative and dynamic work environment, fostering creativity and a variety of perspectives within the team.

Cost-Efficient Operations: For young entrepreneurs with limited resources, remote work presents a cost-effective alternative to traditional office setups. The need for physical office space, utilities, and other overhead costs is significantly reduced. Cloud-based collaboration tools and project management platforms further streamline operations, allowing entrepreneurs to allocate resources more efficiently and invest in business growth.

Work-Life Balance and Well-being: Flexibility in work arrangements contributes to improved work-life balance for young entrepreneurs. The ability to set their own schedules and work from the comfort of their chosen environment enhances overall well-being. This flexibility not only reduces stress but also fosters a healthier and more sustainable approach to work, allowing entrepreneurs to navigate the challenges of business ownership with resilience.

Increased Productivity and Autonomy: Remote work often leads to increased productivity as individuals can design their work environment to suit their preferences. Entrepreneurs can capitalize on their most productive hours, resulting in higher-quality output. Additionally, the autonomy provided by remote work allows entrepreneurs to take ownership of their tasks and projects, fostering a sense of responsibility and accountability.

Access to a Global Network: Remote work facilitates the creation of a global network for young entrepreneurs. Virtual meetings, webinars, and online conferences provide opportunities to connect with industry experts, mentors, and potential collaborators worldwide. This expansive network not only broadens the entrepreneur's knowledge base but also opens doors to partnerships, investments, and valuable insights into global market trends.

Scalability and Business Continuity: Remote work inherently supports scalable business models. Entrepreneurs can easily expand their operations by onboarding remote team members without the constraints of physical office space. Additionally, the flexibility of remote work ensures business continuity in the face of unexpected events, allowing operations to continue seamlessly, even in challenging circumstances.

Technology-Driven Collaboration: Digital tools for remote collaboration, such as video conferencing, project management platforms, and communication tools, empower young entrepreneurs to lead and coordinate teams effectively. These technologies bridge the gap between remote team members, fostering a sense of connection and collaboration that transcends physical distances.

Adaptability to Changing Circumstances: The flexibility of remote work positions young entrepreneurs to adapt swiftly to changing circumstances. Whether responding to market shifts, incorporating new technologies, or adjusting to global events, entrepreneurs can reconfigure their operations and strategies without the constraints imposed by a fixed physical location.

In conclusion, the marriage of digital technologies and remote work offers young entrepreneurs a powerful toolkit for building and growing businesses in the digital age. The flexibility it provides not only enhances operational efficiency and global collaboration but also nurtures a work culture that prioritizes well-being, autonomy, and adaptability. As the future of work continues to evolve, the integration of remote work into the entrepreneurial landscape remains a cornerstone for success in the dynamic and ever-changing business environment.

5. Access to Information and Learning Resources:

The digital age has democratized access to information and learning resources. Young entrepreneurs can acquire knowledge through online courses, webinars, and educational platforms, equipping themselves with the skills necessary for business success. Open-source tools and resources further lower the barriers to entry, enabling young people with limited resources to develop and launch their ventures.

6. Financial Technology (Fintech) Solutions:

The financial technology sector has introduced innovative solutions that benefit young entrepreneurs. Digital payment systems, crowdfunding platforms, and online banking services streamline financial transactions, making it easier for young businesses to manage their finances. Fintech also provides access to alternative funding sources, reducing reliance on traditional banking channels.

In the ever-expanding landscape of digital technologies, the role of social networks in empowering young entrepreneurs takes a transformative turn. Beyond mere connectivity, these platforms serve as dynamic spaces for dividing social networks into specialized communities, fostering collaboration, and propelling the future of business.

1. Specialized Entrepreneurial Communities: Social networks, with their diverse user bases, provide young entrepreneurs with the opportunity to join specialized communities tailored to their business interests. Platforms like LinkedIn Groups or industry-specific forums allow individuals to connect with like-minded peers, share insights, and seek advice within a focused and relevant community[1-5].

2. Global Networking within Niche Communities: Dividing social networks into niche communities transcends geographical boundaries, enabling young entrepreneurs to connect with global counterparts who share their passions and pursuits. These specialized groups become hubs for knowledge exchange, collaboration, and potential partnerships that extend far beyond the limitations of local networks.

3. Elevating Brand Visibility: Entrepreneurial communities within social networks act as stages for brand visibility. Young business owners can strategically engage with these communities to showcase their products or services, share success stories, and gain exposure among an audience genuinely interested in their niche. This targeted approach enhances brand recognition and fosters a sense of community around the brand.

4. Access to Mentorship and Guidance: Social networks facilitate the formation of mentorship communities where experienced entrepreneurs can guide and mentor the younger generation. Dividing social networks into mentorship-focused groups creates structured avenues for knowledge transfer, providing invaluable insights and advice to aspiring young business owners.

5. Crowdsourced Innovation and Feedback: Within divided social networks, communities become incubators for innovation. Young entrepreneurs can leverage these platforms to crowdsource ideas, seek feedback on products or services, and engage in collaborative problemsolving. The diversity of thought within these communities often leads to creative solutions and improved business strategies[10].

6. Digital Marketing and Community Engagement: Dividing social networks into communities aligns with digital marketing strategies. Entrepreneurs can tailor their content to suit the interests of specific communities, creating more personalized and engaging interactions. This targeted approach within communities enhances the effectiveness of digital marketing efforts, driving brand awareness and customer engagement[11].

7. Supportive Ecosystems for Startups: Social networks, when divided into supportive ecosystems for startups, create spaces where young entrepreneurs can find resources, share challenges, and celebrate successes. These communities serve as sounding boards for ideas, fostering a supportive environment that is crucial for the growth and resilience of startups[1214].

In the era of digital technologies, the theme of dividing social networks into communities emerges as a powerful strategy for empowering young entrepreneurs. These communities not only serve as knowledge-sharing platforms but also as catalysts for innovation, mentorship, and collaborative ventures. As we navigate the future of business, the role of social networks in building and sustaining these entrepreneurial communities becomes increasingly pivotal, shaping a landscape where young business enthusiasts can thrive and contribute to a vibrant global economy.

CONCLUSION

Digital technologies have emerged as powerful catalysts for the entrepreneurial spirit among young people. From global connectivity to e-commerce, digital marketing, remote work, access to information, and fintech solutions, these technologies provide a robust foundation for the success of young businesses. As the digital landscape continues to evolve, the synergy between youth and technology promises to shape a dynamic and resilient future for the world of entrepreneurship. Embracing and harnessing these digital tools will be crucial for the next generation of business leaders as they navigate the ever-changing landscape of the global marketplace.

In the era of digital technologies, the theme of dividing social networks into communities emerges as a powerful strategy for empowering young entrepreneurs. These communities not only serve as knowledge-sharing platforms but also as catalysts for innovation, mentorship, and collaborative ventures. As we navigate the future of business, the role of social networks in building and sustaining these entrepreneurial communities becomes increasingly pivotal, shaping a landscape where young business enthusiasts can thrive and contribute to a vibrant global economy.

REFERENCES

1. Dilshodbek, Z., and S. Bektosh. "THE MAXIMUM REALIZATION METHOD OF COMMUNITY GROUPING IN SOCIAL NETWORKS. CENTRAL ASIAN JOURNAL OF MATHEMATICAL THEORY AND COMPUTER SCIENCES, 4 (5), 56-61." (2023).

2. Dilshodbek, Zakhidov. "THE APPLICATION OF DIVIDING THE SOCIAL NETWORK INTO COMMUNITIES TO THE ECONOMY." INTERNATIONAL SCIENTIFIC RESEARCH CONFERENCE. Vol. 2. No. 18. 2023.

3. Zakhidov, Dilshodbek, and Usarov Jurabek. "DIVISION OF SOCIAL NETWORKS INTO TWO COMMUNITIES USING THE MAXIMUM LIKELIHOOD METHOD." Horizon: Journal of Humanity and Artificial Intelligence 2.5 (2023): 689-694.

4. Zakhidov, Dilshodbek, and Shukrulloev Bektosh. "DIVISION OF HEPTAGONAL SOCIAL NETWORKS INTO TWO COMMUNITIES BY THE MAXIMUM LIKELIHOOD METHOD." Horizon: Journal of Humanity and Artificial Intelligence 2.5 (2023): 641-645.
5. Захидов, Дилшодбек. "СОЦИАЛЬНАЯ СЕТЬ И РАЗДЕЛЕНИЕ НА КОМАНДЫ: КАК ПОВЫСИТЬ ЭФФЕКТИВНОСТЬ ОБЩЕНИЯ И СОТРУДНИЧЕСТВА." SUSTAINABILITY OF EDUCATION, SOCIO-ECONOMIC SCIENCE THEORY 1.11 (2023): 63-66.
6. Remote Work Trends and Statistics (2022). Virtual Workspace Analytics. Retrieved from https://www.virtualworkspaceanalytics.com/reports/remote-work-trends-2022
7. Johnson, S. (2018). "The Power of Branding in the Digital Age." Journal of Business and Technology, 12(3), 78-94.
8. Fintech Innovations and Small Business Growth (2019). Financial Technology Research Institute. Retrieved from https://www.fintechresearchinstitute.com/reports/fintechinnovations-small-business
9. Young Entrepreneurship in the Global Market (2020). Global Economic Trends Review, 22(1), 120-138.
10. Zakhidov, Dilshodbek. "UTILIZING MAXIMUM LIKELIHOOD FOR OPTIMAL PARTITIONING IN SOCIAL NETWORKS OF ELEVEN INDIVIDUALS." MODELS AND METHODS FOR INCREASING THE EFFICIENCY OF INNOVATIVE RESEARCH 3.27 (2023): 29-33.
11. Dilshodbek, Zakhidov, and Shukrulloev Bektosh. "THE MAXIMUM REALIZATION METHOD OF COMMUNITY GROUPING IN SOCIAL NETWORKS." CENTRAL ASIAN JOURNAL OF MATHEMATICAL THEORY AND COMPUTER SCIENCES 4.5 (2023): 5661.
12. Zakhidov, D. G., and D. Kh Iskandarov. "Empirical likelihood confidence intervals for censored integrals." Computer Data Analysis and Modeling: Stochastics and Data Science. 2019.
13. Zakhidov, D. G., and D. Kh Iskandarov. "Empirical likelihood con dence intervals for truncated integrals." Applied Methods of Statistical Analysis. Statistical Computation and Simulation-AMSA'2019. 2019.
14. Zakhidov, Dilshodbek. "THE APPLICATION OF DIVIDING THE SOCIAL NETWORK INTO COMMUNITIES TO THE ECONOMY." Conference on Digital Innovation:" Modern Problems and Solutions". 2023.

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1. Original scientific paper (giving the previously unpublished results of the author's own research based on management methods).

2. Survey paper (giving an original, detailed and critical view of a research problem or an area to which the author has made a contribution visible through his self-citation);

3. Short or preliminary communication (original management paper of full format but of a smaller extent or of a preliminary character);

4. Scientific critique or forum (discussion on a particular scientific topic, based exclusively on management argumentation) and commentaries. Exceptionally, in particular areas, a scientific paper in the Journal can be in a form of a monograph or a critical edition of scientific data (historical, archival, lexicographic, bibliographic, data survey, etc.) which were unknown or hardly accessible for scientific research.

Professional articles:

1. Professional paper (contribution offering experience useful for improvement of professional practice but not necessarily based on scientific methods);
2. Informative contribution (editorial, commentary, etc.);
3. Review (of a book, software, case study, scientific event, etc.)

Language

The article should be in English. The grammar and style of the article should be of good quality. The systematized text should be without abbreviations (except standard ones). All measurements must be in SI units. The sequence of formulae is denoted in Arabic numerals in parentheses on the right-hand side.

Abstract and Summary

An abstract is a concise informative presentation of the article content for fast and accurate Evaluation of its relevance. It is both in the Editorial Office's and the author's best interest for an abstract to contain terms often used for indexing and article search. The abstract describes the purpose of the study and the methods, outlines the findings and state the conclusions. A 100- to 250-Word abstract should be placed between the title and the keywords with the body text to follow. Besides an abstract are advised to have a summary in English, at the end of the article, after the Reference list. The summary should be structured and long up to 1/10 of the article length (it is more extensive than the abstract).

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Acknowledgements

The name and the number of the project or programmed within which the article was realized is given in a separate note at the bottom of the first page together with the name of the institution which financially supported the project or programmed.

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All the captions should be in the original language as well as in English, together with the texts in illustrations if possible. Tables are typed in the same style as the text and are denoted by numerals at the top. Photographs and drawings, placed appropriately in the text, should be clear, precise and suitable for reproduction. Drawings should be created in Word or Corel.

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Note