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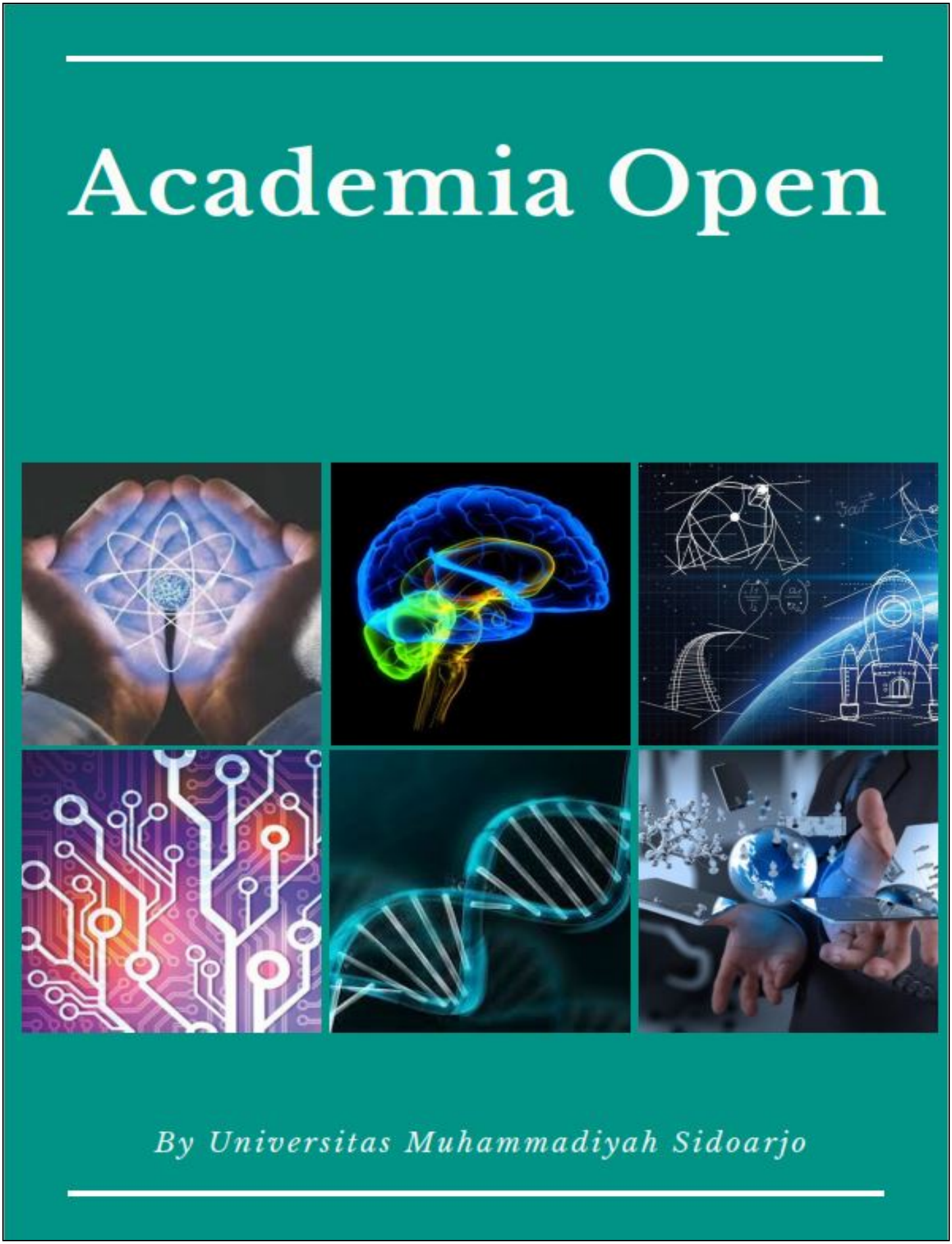

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The importance and morphobiology of the povlovnia tree

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Abstract

It is well known that the findings of scientists in the field of forestry, as well as the introduction of new technologies in production are of great importance. In particular, it is necessary to scientifically substantiate the normal growth and adaptation of new plant species. In addition, the role of trees in the prosperity of every person is unparalleled. This valuable tribute to treasure plays an important role in the economy of the economy, growing and increasing new types of trees and discovering their characteristics. Exemplary exotic trees in cities and villages, qualitative changes in timber supply and research by scientists in this field are clear evidence of the full support of innovation activities under the leadership of the President. Pavlovnia-Pavlovnia is part of the decorative tree species. There are 10 types of plants that are mainly grown in the east. Uzbekistan grows as an ornamental plant. The height of the neck is 12–20 meters, in the fall the normal edges of the leaf are scattered, and the bark opens until the leaf is released. The fruit is a large deciduous worm, the seeds are small, the light is soft. Povlovny made of pepper, roots and seeds.

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Introduction

This year, the proposed plant Pavlovnia will be established, maternity bases, cuttings, buds and beetles will be trained, disease and pests will be planted open and closed, and phenological observations will be made during the development. At the same time, the technology and efficiency of planting seedlings of Pavlovnaya are combined with the rooting method of root cultivation, and both methods are tested. In this case, in-field experiments without in-vitro methods can be performed to identify low-cost income pathways.

Experimental results; Effect of fertilizers on the cultivation of the Pavlovnia tree seedlings. As we know, vegetative reproduction of plants is not a novelty, but a long history. Specifically, when we study the introduced plants, especially Pavlovnica, the literature uses a variety of ways to reproduce its seeds and use the modern in vitro method. We did not find information on reproduction of the root stem in the sources of the literature. However, the fact that this method is practiced by amateur planters and native florists and unique ornamental lovers, however, requires a scientific approach, has made it necessary for scientific validation.

We started our experiments in 2018 at the Temirov Saidillo Forestry Farm in Pakhtaabad District, Andijan region, from cuttings of cuttings from seedlings cut from the German state and grown for the Road Improvement in Andijan region.

Main part

At the same time, 480 root cuttings were cut 12 to 15 cm long in the spring screens during February 2-3 and buried underground with 2-3 cm thick cuttings in the field prepared for special experiments. 360 more cuttings from root tubers during planting

Infused with 150 g / liter, 200 g / l and 250 g / l gibberilin biostimulants for 14–20 hours and injected into the experimental field in a 60x30: 1 scheme. Experiments in both schemes were placed in 4 variants and 4–3 repetitions.

The results of our experiments in Scheme 1, namely the study of the influence of mineral fertilizers on growth of Pavlovnaya, 1) control, 2) 60 kg Nitrogen + 30 kg Phosphorus, 3) 90 kg Nitrogen + 60 kg Phosphorus, and 4) 120 kg Nitrogen + 90 kg. Phosphorus + 60 kg Potassium-assisted experiments 4 variants of each variant were planned to be placed in 4 reps.

100% Nitric Fertilizer and 25% Nitrogen Fertilization Before Sowing into the Experimental Fields 30 - 30 cm in each 60x30: 1 scheme with 120 cm of roots planted in soil with 2–3 cm of soil 27-29 - March 27-29.03.2018 and light field furrow irrigation was carried out due to the good moisture in the field. After that, on 05.04.2018 from 05.06.2018 The germination of seedlings was observed every five days. As a result of our observations, when we study the number of germination in each variant, we obtain the data in Table 1.

Table 1

Effect of fertilizers on the germination coefficient of Pavlovian plants (05.03-05.06, 2018)

№	Option name (kg physically feathered)	Number of root bushes planted	Number of seedlings	Number of seedlings sprouted (%)
1	Control	120	87	72.5
2	N-60 P-30	120	89	74.2
3	N-90 P-60	120	90	75.0
4	N-120 P-90 K-60	120	102	85.0

Table 1.

As Table 1 shows, the cultivation of the Pavlovnia plant from the root stem should be the soil for the autumn plowing and well-watered slopes. Also when studying the effect of mineral fertilizers on germination

72.5% of variant 1, 74.2% of variant 2, 75.0% of variant 3 and 85.0% of variants were observed. The results show that the best option was found in option 4, which was 85%.

Influence of mineral fertilizers on the growth and development of Pavlovnia plants.

It is well-known that the conclusions obtained by the scientists in the development of the forestry sector and the widespread introduction of new technologies in the production process are of great importance. In particular, there is a need for scientific justification of adaptation and development of new species of plants entering our country. In

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addition, the role played by trees in maintaining a clean environment but not on the welfare of everyone.

The effective use of this invaluable natural resource in the economic sectors plays an important role in the cultivation, reproduction and discovery of new species of trees. Qualitative changes in the supply of rare exotic trees and wood products, growing in our cities and villages, are the evidence of the full support of innovative activity under the leadership of the President.

An innovative project developed by scientists of the National University of Uzbekistan named after Mirzo Ulugbek and the Academy of Sciences of Uzbekistan jointly with the Cambridge University in the UK is aimed at the cultivation and reproduction of artificial seeds in the country in vitro.

According to A. Turaev's (2012) experiments, “in vitro” is a rapid method of reproduction by means of microclonalization of plants. Professor of the Center for Educational and Experimental Technology of High Technology, co-author of this innovative technology. - The advantage of natural conditions is that it is possible to produce genetically identical seedlings, to free them from viruses and other diseases, to increase the coefficient of growth and to ensure rapid growth. This innovative technology, developed by scientists, will further promote agricultural biomass, bio-fertilizer, fodder, honey, timber and finishing materials for the furniture industry, a unique tree that provides the environment, and the beauty of our cities and villages.

Based on the foregoing, we are pursuing a multidisciplinary approach to this project to provide scientific substantiation of optimal agrotechnical measures for plant growth and normal growth in order to simplify cultivation of Pavlovnia trees at low cost and to reduce seedling costs. .

Table 2

Influence of mineral fertilizers on growth of Pavlovnaya height

№	Option name (kg physically feathered)	Plant height (cm) n = 10			
		S	V%	S %	Lim
1	Control	2164.5	6.5	2.0	185-245
2	N-60 P-30	233 2,3	3,2	1,0	210-250
3	N-90 P-60	2724.9	5,7	1,8	240-305
4	N-120 P-90 K-60	310,27,4	7,5	2,3	250-360

Table 2.

Table 2 examines the effects of mineral fertilizers on plant height during different rates of application in 2018. Research on 4 variants was carried out. That is,

1) control,

2) 60 kg Nitrogen + 30 kg Phosphorus,

3) 90 kg Nitrogen + 60 kg Phosphorus and

4) 120 kg Nitrogen + 90 kg Phosphorus + 60 kg Potassium

The results showed that in each variant, the results of the experiments from 4 repetitions were determined by 10 model plants and phenological observations were performed. This is the best result when it comes to control

Option 4 was observed at 94 cm, with the highest recorded. In addition, options 2-3 show a 17-56 cm higher than standard, and NPC 120/90/60 in Pavlovia nursery care is based on our experience.

In addition to the study of Pavlovnia vegetation height, model diameters were studied. Initially, given the positive features of the plant and its various products or economic aspects, the Pavlovnia tree is important not only for firewood or wood, but also for the improvement of the soil condition. The deep-rooted pavlovnia promotes the improvement of soil composition by absorbing nitrate, heavy metals and other elements in the soil. This is evidenced by the fact that today pawlovnia plantations are being planted in infertile lands in developed countries.

Large leaves of Pavlovnia help feed the animals. It contains 8 amino acids and micronutrients, such as nitrogen, iron, zinc, manganese. Enhances fruitflower. The floral aroma provides cheap raw materials for the cosmetics industry.

Pavlovniy is known for its light, transparent and vibrant scent. Multiple single-seasonts can collect 10-15 kg of nectar.

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Based on this, the study of the plant's diameter will allow not only the dry quantity but also the biomass to increase its prediction of how long it will take to get the raw material from the tree. The results showed that as the amount of mineral fertilizers applied to different controls increased, the difference in the diameter of the plants increased.

Table 3

Influence of mineral fertilizer norms on changing the diameter of the seedlings of Pavlov

№	Option name (kg physically feathered)	Plant diameter (mm) n = 10			
		S	V%	S %	Lim
1	Control	35.81.5	13.8	4.3	27-50
2	N-60 P-30	41.51.3	10.7	3.3	33-50
3	N-90 P-60	46.11.8	12.9	4.0	33-57
4	N-120 P-90 K-60	49.71.9	12.8	4.0	39-60

Table 3.

Table 3 presents the statistical analysis of the results, with the plant diameter being 35.8 mm in control, 41.5 mm for NP 60/30 kg, 46.1 mm for NP 90/60 kg, and NPK 120/90/60 kg for normal use. the upper index was found to be 49.7 mm. Therefore, NPK 120/90/60 kg planting of Pavlovnia root stem is best shown in variant 4, which was found during our research to ensure that plant height and diameter are consistent with this standard when producing seedlings.

Effects of gibberilin biostimulants on the cultivation of Pavlovnia seedlings from root stem. We had a lot of discussions to get the Pavlovnia plant to grow through the stem. Also, Professor S. Using the Kojahmedov's many years of forestry experiments, we have provided the second scheme of our research to support the effects of Gibberilin biostimulants on germination and growth.

In this case; Option 1 CONTROL,

Option 2 is 150 grams / liter,

Option 3 is 200 grams / liter

Option 4 is 250 grams / liter

Each option was placed in 3 reps. As can be seen from the results (Table 3.4.1), in the first variant, 72.2% germination yielded 90-90% in 3-4 variants of 200–250 g / l. Gibberilin was 2.8% higher than the control in the variant 3 where 150 gr / l was used.

Table 4

Influence of gibberilin biostimulants on germination of seedlings from Pavlovnia root stem

№	Option name (kg physically feathered)	Number of rooting seedlings = 90	Number of seedlings	Number of saplings (%)
1	Control	90	65	72.2
2	150	90	69	75.0
3	200	90	81	90.0
4	250	90	82	91.1

Table 4.

In our first year experiments, it would be desirable to use a 200 gr / l ratio to obtain germination from the root stem.

Influence of gibberilin biostimulants on growth of Pavlovnaya seedlings. However, we have hardly seen the results of the experiments on cultivation or cultivation of the Pavlovian plant. The results of our 2018 study showed that when compared with control, plant height and diameter varied between 3–4 variants of 200–250 g / liter. It has been found that the use of 200 g rather than 250 g / liter is the best one to increase the cost-effectiveness of the microbiological drug used (Tables 5 and 6).

Table 5

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№	Option name (gr / l)	Plant height (cm) n = 10			
		S	V%	S %	Lim
1	Control	225,24,9	6,8	2,1	200-270
2	150	322,3 5,6	5,5	1,7	270-360
3	200	333,34,2	4,0	1,3	280-350
4	250	3384,6	4,3	1,3	300-400

Table 5.

Results showed that in each variant, the results of the experiments from 3 repetitions were determined in 10 model plants and phenological observations were performed. The best results compared to the control variant were observed in option 3-4, with a high score of 108-112 cm. In addition, Option 2 also recorded a 97 cm higher than standard.

Table 6

№	Option name (gr / l)	Plant Diameter (mm)n=10			
		S	V%	S %	Lim
1	Control	36.91.5	13.0	4.0	35-48
2	150	48.41.8	12.0	3.8	39-60
3	200	58.92.6	14.0	4.4	47-71
4	250	60.31.9	10.0	3.3	48-72

Table 6.

Table 6 presents the statistical analysis of the results, with the plant diameter being 36.9 mm in control, 48.4 mm for gibberilin 150 g / l, 58.9 mm for 200 g / l, and the highest for 60 g / gibberilin 60.3. mm. Therefore, gibberilin 200–250 g / l is the best indicator for planting Pavlovnaya rootstock in variant 4, but the plant height and diameter are consistent with this standard when producing 200 g / l. was discovered during the study.

Summary

In conclusion, it is worth noting that based on our practical experience, the best results for 2018 were found in the plant height and diameter in planting seedlings of pavlova using the version 4, namely, 120/90/60 NPK, and the study of the biostimulator of Gibberilin. As a result, Scheme 2 shows the best results in options 3–4 using 200–250 g / liter, and the third standard with 200 g / liter was used for the same standard plants. Consequently, it was found in the course of our research that during the production process, when the seedlings were prepared, the height and diameter of the plants were even higher.

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