THE INFLUENCE OF VARIOUS PLANTING SCHEMES AND BIOSTIMULANTS ON THE GROWTH AND DEVELOPMENT OF PEANUTS.

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Annotation: this article describes data on determining the influence of different planting schemes of the feeding area on the duration of development of peanuts, in the conditions of Meadow Boz soils of the Andijan region. germination of peanut seeds was observed to begin 1 to 2 days late as the feeding area increased, and branching and flowering phases were found to have started 2 days earlier in a planting scheme with a high feeding area of 70 x 30 – 1. The formation of legumes began 2 – 3 days earlier as the feeding area increased in all variants, and the ripening period accelerated as the feeding area increased, and it was observed that the “classical” variety matured up to 7 days earlier.

Today, high yields of peanuts are achieved in a number of countries of the world, using an optimal planting system suitable for various soil and climatic conditions. Significant effects of the feeding area on peanut growth-development, leaf surface, yield, and yield quality have been found. Research on determining the optimal planting system suitable for different climatic and soil conditions is considered relevant.

Peanut crop is the sixth largest oil crop worldwide. Its seed contains 48 – 50% oil and 26-28% protein and is rich in protein, minerals and vitamins. Peanuts are planted in more than 100 countries around the world. Of this, 56% and 40% of Asia and Africa are cultivated in common land areas, respectively 68% and 25% of total production are obtained[1].

In our republic, it is important to apply planting systems that provide an optimal feeding area that is economically efficient in the production of high and high-quality crops from Peanuts.

In this regard, scientific research on determining the optimal nutritional area, which ensures high and high-quality yields from peanuts, as well as the widespread introduction of positive results into practice, is considered one of today's important tasks.

Based on the above, research has been carried out in order to determine the optimal planting scheme, mineral fertilizer norms and the effectiveness of biostimulants in the conditions of Meadow Boz soils of the Andijan region, in the cultivation of high and high-quality crops from Peanuts.

The field experiment was carried out in 2022 at the experimental farm of the Andijan Institute of Agriculture and agrotechnologies of the Andijan region. The soils of the experimental field are irrigated Meadow Marsh, heavy sand is weakly saline. The surface of the Sizot Waters is located at a depth of 1.5-2 meters.

In experiments, the Plant Science Dog planted the “classical” variety of peanuts created at 2 planting schemes 70x20-1 and 70x30-1, and studies were carried out on the influence of 3 mineral fertilizers on the growth and yield of N60 P110 K40, N90, P165, K65 and N120, P220, K85 kg/ha, as well as biostimulants Biosol, Geophos, GEO-K peanuts.

Field experiments are performed in 14 variants, 4 iterations. The Pike population is 48. The total area of each variant is 140 m2, of which the calculated area is 70 m2, that is, 25 meters long and 5.6 meters wide. the total experimental area was 7840 m2.

The growth process of the plant is considered to be indicators of crop formation, depending on the existing conditions and varietal biology.

Depending on the formation of the stem of the specimens of the peanut variety, there are three groups: the STEM is an upright grower, the STEM is a semi-erect grower, the STEM is a lying grower. In Central Asia, mainly erect and semi-erect growing varieties of peanuts are grown, the height of the STEM is 35-55 CM. Although the yield of varieties growing with a lying stem is very high, it is not grown in Central Asian countries due to the length of the growing season (180-270 days) and the complexity of processing between the rows. The peanut stem and leaf are nutritious feed for livestock, and the nutritious one stands close to the Alfalfa from the jackfruit. The remains of the peanut plant contain a large amount of phosphorus and potassium [2].

The peanut variety options studied in our scientific research work were carried out in the style in which the height of the main stem was adopted every 15 days. It has been observed that differences in the basic STEM height of peanut varieties have been significant in terms of the varieties studied as well as in the planting scheme.

English: According to the information obtained, the lowest figure in the “classical” variety was observed in a variant with a feeding area of 1050 cm2, 54.0 CM. in the case of ni, the feeding area was found to be 1.6 cm compared to the lowest in the 1400 cm2 variant; 3.4 cm in the 1750 cm2 variant with the feeding area; 5.6 cm higher in the 2100 cm2 variant with the feeding area. The fact that this variety also retains the above law is cited in the table data. It can be seen from this that even in the” classical " Variety, the highest indicator was observed in a variant with a feeding area of 2100 cm2 (59.6 CM).

In this variant, too, it was found that the legality observed in the above variants was repeated and the highest was 70.2 CM in the 2100 cm2 variant.

Peanuts undergo developmental phases such as germination, branching, flowering, legume formation, and maturation. According to the experimental data carried out, the effect of the nutrition field on the duration of development of peanut varieties has become significant. The data from the results of the study is presented in Table 1.

Table 1.

Duration of development phases of peanuts

№ Planting scheme mineral fertilizer norm, germination per kg/branch to form flower-lash pods ripening

1 70x20-1 Biosol, Geophos, GEO-K 9 23 26 45 145

2 N-60, P-110, K-40 9 23 27 46 146

3 N-90, P-165, K-65 9 23 27 47 146

4 N-120, P-220, K-85 9 23 28 49 148

5 70x30-1 Biosol, Geophos, GEO-K 11 21 24 44 138

6 N-60, P-110, K-40 11 21 24 44 138

7 N-90, P-165, K-65 11 22 25 45 139

8 N-120, P-220, K-85 11 22 26 47 141

9 70x20 - 1 N-60, P-110, K-40+ Biosol, Geophos, GEO-K 9 23 27 46 146

10 N-90, P-165, K-65 + Biosol, Geophos, GEO-K 9 24 28 47 148

11 N-120, P-220, K-85 + Biosol, Geophos, GEO-K 9 24 28 47 149
12 70x30 - 1 N-60, P-110, K-40 + Biosol, Geophos, GEO-K 11 22 25 46 139
13 N-90, P-165, K-65 + Biosol, Geophos, GEO-K 11 23 26 45 141
14 N-120, P-220, K-85 + Biosol, Geophos, GEO-K 11 23 28 45 143

According to the data obtained on the duration of the development phases of peanut varieties, the seeds of the "classical" variety required 45-47 days to the flowering phase; 23 days to the branching phase; 26-27 days to the flowering phase; 45-47 days to the legume formation phase and 145 days to the ripening period.

Sprouted in 11 days in a planting scheme with a high feeding area of 70 x 30 – 1. It was found that the branching phase began 3 days, the flowering phase 2 days, the formation of legumes began 1 day early, and ripening began 7 days earlier.

According to the information from the experiment, the following can be concluded: Germination of peanut seeds was observed to begin 1 to 2 days late as the feeding area increased, and branching and flowering phases were found to have started 2 days earlier in a planting scheme with a high feeding area of 70 x 30 – 1. The formation of legumes began 2 – 3 days earlier as the feeding area increased in all variants, and the ripening period accelerated as the feeding area increased, and it was observed that the "classical" variety matured up to 7 days earlier.