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# JUSTIFICATION OF IMPROVING THE WATER PERMEABILITY OF THE SOIL IN THE APPLICATION OF DRIP IRRIGATION TECHNOLOGY IN COTTON IRRIGATION

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**Abstract**

According to the results data obtained from the research carried out in the article, the soil water permeability at the beginning of the vegetation period was 960 cbm/ha or 0.27 mm/min for 6 hours. By the end of the vegetative period, Option 1 Production Control observed that soil water permeability decreases to 648 cbm/ha or 0.18 mm/min i.e., 0.09 mm/min over a 6-hour period. Drip-irrigated option 2 stated that soil water permeability was 736 cbm/ha or 0.21 mm/min for 6 hours, and was observed to decrease by 0.06 mm/min.

**Keywords:** water permeability, soil, drip irrigation.

**Introduction.**

One of the factors that negatively affect the increase in Acorn productivity in the current period is the shortage of water that occurs during the vegetative period, while the other is the lack of consideration of local soil and hydrogeological conditions when watering acorns on most farms, their actual requirements for water during the transition phases of their growth and development. Some of the toxic chemicals that are being applied to the soil in the process of intensive irrigation, weeds and insects, are washed into the groundwater, causing them to deteriorate their ecological-reclamation state. The above reasons entail the effective use of water reserves being allocated to irrigated lands, the implementation of a system of agrotechnological measures, scientific justification and practice of irrigation methods and procedures that do not adversely affect the environmental situation.

**Research style and experimental system.**

In order to fulfill the above goals and objectives, field experiments were carried out on the basis of the technology of drip irrigation of acorns in the water-scarce regions of the Bukhara region. The "Bukhara-102" Acorn navichigiti zoned for the Bukhara region is under a double film based on a special Chinese technology, as well as a pineapple planting scheme of 90/90 CM.scientific research was carried out on planting in order to compare it as a control.

**Table 1.**

**Field experiments were carried out in the following system**

| Variant | Irrigation method and cultivation technology | Annual fertilizer norm, NPK kg / ha | | |
|---|---|---|---|---|
| | | *N* | *P* | *K* |
| 1. | Egatlab irrigation (control) | Factual measurements | | |
| 2. | Drip irrigation technology | 250 | 175 | 100 |

The experimental options were carried out in three recurrences, and the irrigation was carried out in a 70-80-65% order compared to the pre-irrigation soil moisture ChDNS recommended by ospiti alimlpri for the regions. In the control option, when growing Acorns, it is necessary to use agrotechnologies used for this region (plowing, salt washing, watering for wet collection, pre-planting in the ground, planting, seedling thickness, inter-row processing, fertilizing, watering, combating weeds, etc.k) was used.

And in the experimental options, certain elements of the agrotechnologies adopted for growing crops (planting system – between the row, seedling thickness, reduction in the number of cultivations, the provision of water and mineral fertilizers through drip irrigation equipment on plant demand) are improved.

**Experience changes the water permeability of the dalasi soil throughout vegetesia.**

| Defined period | | | | | |
|---|---|---|---|---|---|
| Defined period | | At the end of the vegetation | | | |
| | | V-1 | | V-2 | |
| cbm/ha | mm/min | cbm/ha | mm/min | cbm/ha | mm/min |
| 960 | 0,27 | 648 | 0,18 | 736 | 0,21 |

**Conclusion.**

According to the results data obtained from research in experimental and control fields, soil water permeability at the beginning of the vegetational period was 960 cbm/ha or 0.27 mm/min for 6 hours. By the end of the vegetative period, Option 1 Production Control observed that soil water permeability decreases to 648 cbm/ha or 0.18 mm/min i.e., 0.09 mm/min over a 6-hour period. Drip irrigated option 2 showed soil water permeability of 736 cbm/ha or 0.21 mm/min for 6 hours and a decrease of 0.06 mm/min.

In the case of drip irrigation, it can be seen from this that the use of tractors and mechanisms to carry out seasonal irrigation and agrotechnical activities (cultivation, egat, fertilizing, weed control) of the Acorn leads to soil compaction and a negative impact on the water-physical properties of the soil, reducing soil water permeability.

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