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in

Ak B.E. (ed.).
XI GREMPA Seminar on Pistachios and Almonds

Zaragoza : CIHEAM
Cahiers Options Méditerranéennes; n. 56

2001
pages 95-96

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SUMMARY – The farming technology of *Pistacia vera* L. plantations in rainfed conditions (foothills) in Central Asia is presented in the paper. Soil preparation for plantations depends on the degree of slope steepness and includes bare fallow (solid ploughing) and terracing. The method of establishment is sowing of *Pistacia vera* seeds at regular spaces, following with the grafting of 3-5 year seedlings. The technology of maintenance by applying organic-mineral fertilizers, formation of crowns and scheme of plants placing is provided there.

Key words: Central Asia, pistachio, technology, plantation, agrotechnical.

RESUME – *"Caractéristiques spéciales des plantations communes de pistachier dans les terres non irriguées (pied des montagnes) de l'Asie Centrale". La technologie culturale pour les plantations de* Pistachia vera *L. en conditions non irriguées (pied des montagnes) en Asie Centrale est présentée dans cet article. La préparation du sol pour les plantations dépend du degré de pente du sol et comprend des jachères nues (labour solide) et des terrasses. La méthode d'établissement consiste à semer les graines de* Pistachia vera *dans des lieux constants, ensuite à greffer des plants de 3-5 ans. Dans cet article figurent la technologie de maintenance avec application de fertilisants organiques minéraux, formation de couronnes et le schéma de disposition des plants.*

Mots-clés : *Asie Centrale, pistachier, technologie, plantation, agrotechnique.*

The countries of Central Asia – Uzbekistan, Tajikistan, Kyrgystan, Turkmenistan and the south of Kazakhstan, as the center of natural distribution of *Pistacia vera L.* – have the large reserves of areas (about 700 thousands hectares) for the establishment of plantations of this valuable nuts-bearing plant in accordance with the technologies worked out by Uzbek Scientific Research Institute of Forestry. Land areas of 50-150 hectares with deep small grained soil on the gentle slopes, with the steepness no more than 20° are recommended to allot for plantations. The rainfed arid foothills within the absolute heights from 600 to 1400 meters above the sea level are perspective areas for the plantation establishment.

Main and the most effective methods of soil preparation for *Pistacia* plantations in Central Asian region are solid ploughing on the gentle sloping plots, as well as terrace making on the plots of steepness from 10° to 20°.

The main preparation of virgin plots, littered to a great extant, is conducted in accordance with the system of bare fallow with the purpose of maximal restoration of moisture reserves of soils. The soil at the old arable plots ploughed at the depth of 40-50 cm to wet deeply with precipitation and for intensive growth of roots of seedlings. Ploughing is conducted across the slopes for the prevention against surface runoff and soil erosion.

Terraces are made no later then 1 year before plantations establishing. The width of terraces is 4.5-5.0 meters to conduct mechanized maintenance.

Pistachio stands are established only by sowing of seeds at the constant place in the early spring period, following with the grafting of 3-5 year seedlings with prolonged shield in T-type section on the bark of stock in the central stem of seedling at a height of 10-15 cm above the soil level in early summer. Schemes of plants location at the plantations are 8 x 8/8 x 10 meters, ratio of male and female plants is 1:8/1:10.

Soil maintenance at the plantations includes 2-3 times cultivation's of soil between rows at a depth of 10-12 cm in spring and in early summer and soil plough at a depth of 20-25 cm in

autumn per year.

For preventing against surface runoff and soil erosion on the slopes of steepness from 5 to 10° soil cross hoeing (mutually perpendicular furrows in the middle of spaces between rows) is effective during the autumn per year. Cross hoeing of soil to use solid ploughing during establishment of pistachio stands to cultivate slopes of steepness of up to 12°. Soil around stems is cultivated by hand for a depth of 10-15 cm, simultaneously with mechanized maintenance. Once in 3-4 years organic-mineral fertilizers applying is conducted in accordance with the following dosages: 300-500 kg of manure, 100-250 kg of nitrogen, 100-300 of phosphor, 25-75 kg of potassium for 1 hectare of plantation. Increased dosages of nitrogen fertilizers are applied to the 10 years old plantations in order to increase increment of plants. Further, dosages of phosphor fertilizers are increased and dosages of nitrogen fertilizers are decreased as plantations come into fruit-bearing. Fertilizers are placed into the area of 1:2 of radius of crowns, to the depth no less than 15 cm in zones of main distribution of root systems.

Trunk forming of 50-70 cm height, as well as forming of crown is conducted in the first 3-4 years.

Four years after grafting, grafted plants come into fruit-bearing as a rule, 5-6 years earlier than not grafted ones.

Applying of recommended agricultural methods to grow of pistachio plantations allows to reduce erosion development to minimum, improve water-physical features of soil, increase productive soil moisture in 3-4 times.

This complex of agrotechnical methods provides the most favourable conditions for pistachio growth and development in hard climate of arid zone, which increases plant increment in 3-4 times, speeds up their fruit-bearing for 4-6 years, increases the productivity of plantations in 2-3 times in comparison with the technology applied in forestry production in Central Asia recently.