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IN THE DEVELOPMENT OF HYDROMORPHIC SOILS THE IMPORTANTCE OF GROWING OILY PLANTS

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Annotation: The properties of hydromorphic soils depend on the level of groundwater, the degree of mineralization, as well as the regime of continuous floods. Experiments have shown that oilseeds can be grown in hydromorphic soils. The example of a single peanut plant can be used to show growth and yield in different hydromorphic soils. This increases the area of irrigated land and expands the raw material base of food plants.

Keywords: Hydromorph, meadow, swamp, saline, peanut, oil plants,irrigation

Introduction

Hydromorphic soils include meadows, swamps, marsh-meadow soils and saline soils that are formed under the influence of constant capillary moisture in conditions close to groundwater. The properties of hydromorphic soils depend on the level of groundwater, the degree of mineralization, as well as the regime of continuous floods. The moisture content of the soil also depends on the mechanical composition and physical properties of the parent rocks that form the soil. In particular, when the groundwater level in the loess is 3- m, the soil horizon is constantly capillary moist at 1,5-3 m in clayey and layered soils. Walnut is a valuable oil crop widely used in Central Asian countries, including Uzbekistan. It is oil is important in the canning, margarine, soap and pharmaceutical industries. Kunjara contains 45 % protein and 8 % fat. The seeds contain 60 % fat and 35 % protein. It is also rich in various fat-soluble vitamins. Dukkagi bark is used as a fuel in the manufacture of insulation materials. It covers an area of 22 million hectares worldwide. In Uzbekistan it is grown mainly on irrigated lands, with a yield of 30-40 s/ga . It is an annual plant with roots up to 190 cm deep. Peanuts are warm and moist. It is the most demanding period for moisture from flowering to fruiting. Depending on the soil conditions, it is grown in fertile, porous , ell-drained, eed-free areas. In heavy, saline and swampy soils, the soil is

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unsuitable for walnuts. Mechanical composition grows well in light soils, has a high yield.

Materials and Methods

Oily plant species can spread and develop at all structural levels of hydromorphic soils, but groundwater is close to the soil surface and has a limited level of mineralization at very high values. The fact that they are perennials specific to oilseed species in their distribution and stable balance, and that deviate from the required optimum temperature norms, limits the development of plant species and leads to the extinction of the species for the region.(

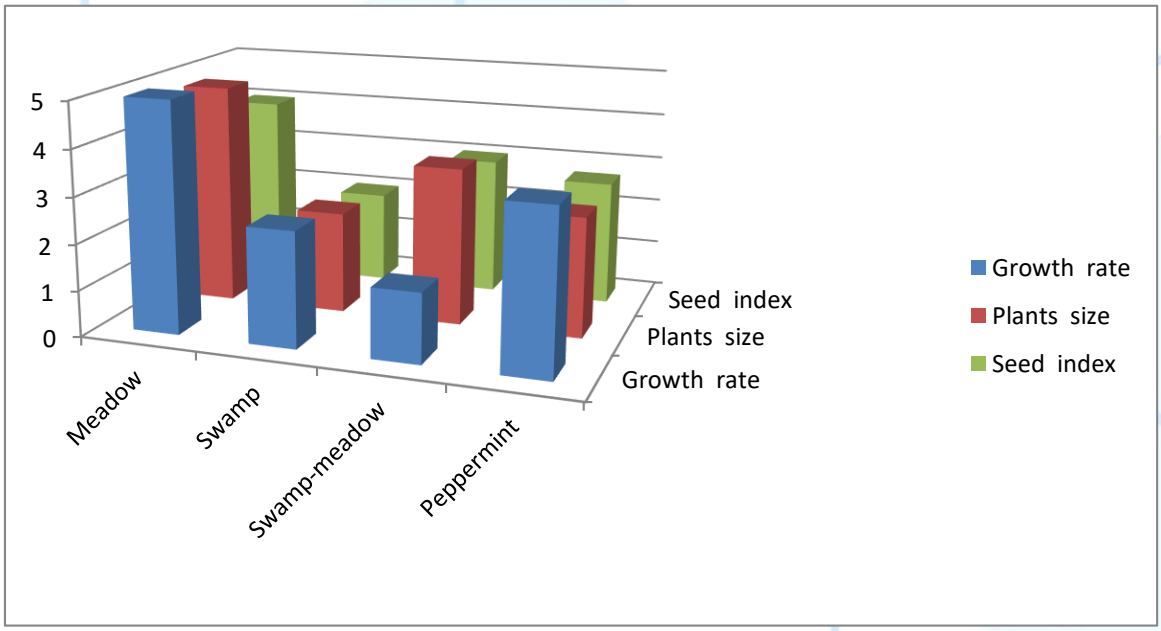

Figure 1.Indicators of peanut type in hydromorphic soil types.

Hydromorphic soils make up 50 % of Uzbekistan's irrigated land and do not play a significant role in crop production. Yields are also low and are grown on a seasonal basis. In soils with high basic fertility and agronomometric value, the norm of large peanuts at the culture and in the wild experiment have shown that the growth rate and seed rate are higher than given the high demand for peanut raw materials in the food industry, growing and cultivating plants in undeveloped hydromorphic soils and evaluating changes in soil quality are the basis of our experience. For these reasons, sampling and specimen preparation protocols for soil or sediment particles are usually less sophisticated than protocols for aquatic particles, provided that one considers soil and sediment particles as static entities having no degree of freedom in their surrounding water. While the majority of soil samples are characterized by slow reactivities and thus require fewer precautions, hydromorphic soils subjected to rapid hydration/dehydration processes are highly sensitive to redox changes and should be sampled with the greatest care to avoid precipitation of dissolved species (Fe2+, Mn2+) during accidental aeration. Otherwise, soils are usually dried,

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sieved, and ground prior to being resuspended in various electrolytes for the selective isolation.

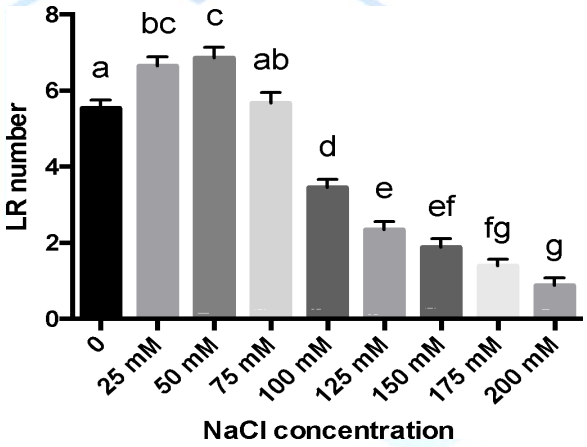

Figure 2.NaCl concentration in saline soils

Results

In the experiment , it was grown in hydromorphic soils and sandy loam and other types of soils near the riverbed of Surkhandarya region.

Soil name	Evaluation	The thickness of the humus horizon,cm	Moderate weight agrochemical properties				
			Ph-KCl	hymus	Total nitrogen	P2O5	K2O
				%		mg/kg	
Sod-podzolik, grown	Average sand	25-27	6,2	2,1	0,11	210-250	150-160
Saturated with alluvial grassland		70-80	6,9	3,6	0,22	200-250	110-170
Washed gray	the fertile soil	80-100	6,4	4,6	0,26	270-350	190-280
Ordinary black soil		60-80	6,2	3,5	0,21	60-100	250-600
Brown gray	muddy	22-25	4,8	5,5	0,30	60-100	140-180

Figure 3.Mineral composition in different soils

It forms a different growth cycle for oil plants growing in hydromorphic soils with different biochemical parameters. It is important to take into account that the root system is also dependent on the root system. An increase in the level of salinity and a violation of the norms of biological fertilizers have a serious impact on crop yields can lead to corrosion.

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Discussion

The thinness of the soil horizon causes it to rapidly converge. This rotating process also causes the composition to change rapidly. Since the sum of temperatures in Surkhandarya region is optimal for peanut species, the main obstacle to plant size and distribution is the agrochemical performance of the soil. After the cultivation of peanuts, it is possible to make a schedule of permanent and seasonal crops, taking into account changes in soil composition and the degree of impact:

1. Meadow-flax, perilla, sunflower, mustard, ground cheek, sesame, safflower.
2. Swamp-mustard, perilla, mustard,flax, groundnuts.
3. Swamp-meadow- perilla, mustard, peanut, safflower.
4. Peppermint-peanuts, lyallemanation, repeseed.

Conclusion

In today's era of globalization, the world's population needs quality food and medicine. Therefore, the development of undeveloped lands will significantly alleviate this need. Given that about 40 % of the land in Central Asia is hydromorphic, the role of many oilseeds in development is particularly high, especially in stabilizing agrochemical performance. One of the solutions to the global problem in the world food industry is to develop these undeveloped lands in alternative ways. Although the proposed plants have a monopoly on hydromorphic lands over the years, the number of both harvested and cultivated lands will increase. Later, plants that can be planted conditionally can be grown.

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