

2798

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Prilog poznavanju tla Behremaginice kao
ekološkog faktora kod uzgoja topola

U V O D

Uzgoj topola pobuđuje sve veći interes kod naših šumara uzgajivača, koji nastoje proširiti područje njihovog uspijevanja i tamo gdje ih danas ne nalazimo. Uzrok tome je i sve veća potražnja za topolom kao celuloznim drvetom, te se pitanje obezbjeđenja sirovina za industriju celuloze najozbiljnije postavlja. Jedna takva okolnost je pobudila Institut za šumarstvo i drvnu industriju u Sarajevu da izvrši ogled sa uzgojem topola na Behremaginici, koja se nalazi u blizini Fabrike celuloze u Prijedoru, te bi bila vrlo pogodna sirovinska baza. Znatne površine na Behremaginici mogle bi da dodu u obzir za topolišta te bi uspjeh toga poduhvata doveo do pretvaranja većeg kompleksa površina u sirovinsku bazu Fabrike u Prijedoru.

Ekološki uslovi gajenja topola su dosad prilično proučavani. Tako Duchaufour (26) ističe tri osnovna zahtjeva topole u odnosu na tlo: dobru aeraciju, obezbjeđenje vode u vegetacijskom periodu i plodnost (obezbjeđenje mineralne hrane). Pri ovome je razmatrano posebno stanje tih uslova kod pojedinih tipova tla, i kao česta prepreka konstatovana je stagnirajuća voda, koja postaje osobito nezgodna ako je bogata organskim materijama. Zbijenost pojedinih horizonata je također nepogodna pojava. Obezbiđenje vode je od osobitog značaja u ljetnom periodu, i tada je vrlo važna visina nivoa podzemne vode, koja mora da omogućiti kapilarno penjanje do sloja sa sistemom topolinog korijenja. U slučajevima gdje je snabdijevanje vodom u ljetnom periodu nesigurno, preporučuje Duchaufour (26) kao obavezno okopavanje da bi se odstranila konkurencija travne vegetacije, koja troši dosta vode. U pogledu elemenata plodnosti, topole zahtijevaju da je tlo dobro snabdjeveno mineralnim materijama (N, P, K, i Ca), te vrlo slabo kiselo sa adsorptivnim kompleksom zasićenim izmjenljivim bazama. Optimalna PH-reakcija smatra se 6—7, a nikako da pređe PH-8.

Osobito interesantnom smatra se konstatacija da su smeda šumska tla ukoliko su dobro snabdjevena vlagom u vrijeme vegetacionog perioda vrlo povoljna za topole, dok se treset i humusna tla na gleju smatraju za njih najnepovoljnijim (Duchaufour).

Sadašnje stanje agrotehnike i njenih mogućnosti primjene kod gajenja šumskih vrsta (u ovom slučaju topola), omogućava gajenje topola i na tlima koja u potpunosti ne obezbjeđuju sve naprijed navedene uslove.

Rezultati koje su neki Instituti u inostanstvu postigli takvim metodama primjene agrotehnike pokazuju da se možemo i mi nadati uspješnom ishodu. Kao karakterističan primjer navodimo ovdje ogled Njemačkog instituta za topole u Bruhl-u (Forstmeister Muller), koji je uspio da postigne vrlo dobre rezultate u visinskom i debljin-

S U M M A R Y.

Contribution to the Knowledge of the Soil in Behremaginica as the Ecological Factor in the Cultivation of Poplar.

As the needs in the cellulose industry are daily growing the growth of white poplar is extending to those areas which do not assure optimal conditions for its cultivation. Such an area is Behremaginica district, the only advantage of which is the neighbourhood of cellulose industry, but on the other hand certain properties of soil are not favourable for cultivation of poplars. Therefore the author has carried out some soil examinations in that areas. He has stated that the question is of a podsollic soil which is rather poor in regard to the elements of fertility, that its physical properties are fairly bad as well as its sour reaction. As the main obstacle to a successful growth of poplars the very compact B-horizont is considered which leads to a rather long withholding of surface waters in flat areas, by which some very characteristic Gley-horizont is created. The soil in the flat areas is assigned to the classification of Kubiëna while the soils in the mountain areas belong to the subclass of Podsol of the same author. The sour reaction and the deficiency of lime are the chief hindrances for a successful growth of poplars and the question of removal of these deficiencies by calcification and manuring is being considered.

It is commonly thought that the soil in the mountain areas can be more easily improved with regard to its somewhat more favourable physical conditions, while in flat regions the basic problem is the control of streamflow and the treatments of surface runoff during the rain seasons.

For calcification a norm of 120—200dz/ha of lime material is suggested together with simultaneous manuring by stable manure to the quantity of 200—300 dz/ha. With these measures specially the necessity of artificial manure has been emphasised. For that purpose the use of stock manure and regular manuring has been recommended. The norms recommended are quoted from the German sources. The author thinks that the experiments with microelements would be of great interest.

But in spite of the use of the recommended measures the author thinks that Behremaginica district has very few prerequisites for a successful cultivation of poplars so all these works should have only an experimental of those species and varieties which will best resist the negative properties of soil by simultaneous application of commended measures. Taking into account that these are not many areas in Bosnia and Hercegovina which would prove optimal stations for poplars it is necessary to cultivate those area which do not offer such stations. That was the main reason for undertaking these works.