

Scientific article of Doctor of Agricultural Sciences Mukhambetov B.

"Study of the productivity of a grass mixture of alfalfa with sweet clover and methods of working off their layer in the Pre-Caspian invariance on irrigation"

Annotation. Salt tolerance and solonetz resistance of sweet clover was thoroughly studied in Kazakhstan and on this basis its high productivity on solonetz, saline non-irrigated lands was established everywhere in comparison with other fodder plants.

The results of experiments on a comparative study of the productivity of fodder crops on non-saline zonal soils also showed its high productivity.

But at the same time sweet clover is a crop that sharply increases the productivity of the grass mixture when it is introduced into it.

In experiments conducted by us in 1998 and 1999. , a high productivity of the joint sowing of sweet clover (*Melilotus*), with alfalfa, was established in comparison with the pure sowing of alfalfa (*Medicago*) - 113.0 c/ha of hay against 81.9 c/ha in total for two years.

When cultivating sweet clover, you should pay attention to the following circumstances. It is well known that under irrigated conditions, the alfalfa layer cannot be processed due to its strong compaction and dryness. A completely different picture is observed when the sweet clover is cultivated for seeds, after which the soil, although it dries up just as much, but at the same time, due to the decomposition of the fallen leaves, the sweet clover layer is easily processed, because there is no strong overcompaction of the soil.

Of the studied methods of processing the sweet clover layer, the best result in the 2019 experiment of laying was obtained by cultivating the soil to a depth of 10-12 cm, with rolling before and after sowing alfalfa with sweet clover - here the grass mixture provided 89.1 c/ha of haylage, which is much higher than its productivity during harrowing (49.5 c/ha) and plowing to a depth of 20-22 cm (69.3 c/ha)