Research on the control of sorghium halepense at the corn cultivated on the meadows of the Danube and in the Banat area

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The expansion of the Sorghum halepense species on the soils in Romania is owed, first of all, to the fact that the atrazin-based herbicides were used unilaterally but this herbicide is an extremely selective one for the Zea mais species and as selective for the Sorghum halepense. In Romania, as in Bulgaria, Hungary and the ex-Yugoslavia, various researches with the classical herbicides Mistral, Titus, etc. have been carried out. The present report presents the efficiency of the classical herbicides as well as that of the new herbicides, Terano, Mikado, Equip, Maister compared to the Mistral herbicides. At the Baneasa-Giurgiu site, the land was infested with Sorghum halepense - the level of covering with the relative species was of over 75%. For instance, in the not hoeing variants, the corn production was small, as only 1800 kg /ha was obtained. On the other had, the variant treated with 3 herbicides: Guardian 4 litres/ha applied before the sowing, then on the vegetation with Dialen Super in a dose of 1 litre/ha + Mistral 2.5 litres/ha the corn production was of 12,200 kg/ha - of course, the corn culture was irrigated three times during the vegetation, having a wetting norm of 400 m3 / ha. Among the "classical" herbicides, Mistral, Titus and Equip, the best results in fighting the Sorghum halepense species was obtained with Mistral applied in doses of 2.0 - 3.0 litres / ha - the fighting being of 95 - 100 % while the Titus 75 DF herbicide applied in a dose of 50 g / ha the fighting of the Sorghum halepense species was only of 47%. As regards the conditions in Banat, the experiments were carried out at the Didactic Site of the University of Agricultural Sciences and Veterinary Medicine in Timisoara. The land on which the relative experiment took place had a covering degree with Sorghum halepense of about 68%. The best results in fighting the Sorghum halepense species and the most important corn production were obtained in the variants treated with the Mistral herbicide, The Master herbicide was placed second.
In conclusion, the sorghum halepense is the species that causes the biggest damage in the corn culture. Under the conditions in the Danube Meadow, the losses in corn were over 9500 kg/ha (under irrigation conditions), and in Banat of over 4000 - 5000 kg/ha under non-irrigation conditions).