



## Research with classical herbicides and new herbicides (Merlin Duo and Gardoprim Plus Gold) applied on the chernozem from Fundulea Fetesti and the brown soil - luvic from Stefanesti Arges

ȘARPE N. - Academy of Agricultural and Forest Sciences in Bucharest

RADULESCU I. - National Research and Development Institute for Bio-technology in Horticulture,  
Stefanesti-Arges

POIENARU S. - Agrofam-Holding-Fetesti

In order to fight the perennial monocotyle weed as those from the gender Agropyron (Elymus), Cynodon, Andropogon, and the best results in our country were obtained with the herbicides Fusilade, Focus, Targa, Gallant, etc. But the vineyards in all the hills planted with vines in Romania are infested also with perennial decotyle from the Convolvulus, Cirsium, Sonchus, Taraxacum genders, etc. Once Romania enters the European Union, the Romanian vine growers will not be able to use the atrazin and simazin-based classical herbicides. What can they be replaced with? In the relative report one demonstrates the new herbicides, Merlin Duo and Gardoprim Plus Gold, have the same efficacy as the classical ones. For 10 years, at ICCP Fundulea, various herbicides based on atrazi, alachlor, ametrin, cycloxydym, diphenamid, fluroxypir, linuron, metalochlor, oxadiazon, pendimethalin, limazin, terbutryn, terbuthylazin etc. have been experimented. The best results in fighting the annual monocotyle and decotyle weeds have been obtained in the variants treated with atrazin and simazin-based herbicides. The following herbicides have been experimented on the black earth from Fetesti, county of Ialomita: Simarex 500 SC which contains 500 g/h of simazin; Merlin Duo, which contains 37,5 g/h isoxaflutol + 375 g/l terbuthylarin; Gardoprim Plus Gold, which contains 342,3 g/l S - metalochlor + 187,5 g/l terbuthylazin; Glyphogan, which contains 360 g/l glyphosates. The best results in fighting the annual and perennial weeds from the Agropyrum, Cynodon, Setaria, Echinochloa, Amaranthus, Chenopodium, Solanum Sonchus, Cirsium, Polygonum, Taraxacum were obtained with the herbicides Marlin Duo and Gardoprim Plus Gold applied pre-emergently and post-emergently with the Glyphogan herbicide. At these variants the fighting of the annual and perennial weed species was of 96 - 100 % according to applied doses. The same results as regards the fighting of the annual and perennial weeds were obtained with the Simanex 500 SG herbicides applied pre-emergently and then post-emergently with the Glyphogan herbicide. As regards these variants also, the fighting of the annual and perennial weeds was of 94%. The same herbicides were experimented on the brown luvic soil from the Stefanesti-Arges site as from Agrofam Fetesti, county of Ialomita. On the basis of the researches carried out; the authors drew the conclusion that the new herbicides, Merlin duo and Gardoprim Plus Gold can replace the atrazin and simazin-based herbicides.