

EXPERIMENTAL RESULTS REGARDING DAMAGING ORGANISMS CONTROL IN SOYBEAN CROPS OF NORTHERN DOBRUDJA

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Abstract

Research was conducted in the years 2010-2014 on molic aluviosoil of Macin-Smardan polder, located in Northern Dobrudja. We studied components of soybean growing technology, in particular the means for controlling weeds, diseases and pests. Weeds growth is favored in this area with irrigation and available groundwater and fertile soils. Weeds spectrum is broad, and the most damaging species are *Sorghum halepense*, *Xanthium strumarium*, *Abutilon theophrasti*, *Solanum nigrum*, *Amaranthus retroflexus*, *Chenopodium album*, *Cirsium arvense*. The tests showed to be more effective application of pre-emergence herbicides Glifos, 3 l/ha or Glyfogan, 3.5 l/ha (glyphosat acide izopropyl amine) and of post-emergence herbicides Pulsar, 1 l/ha (imazamox) + Silwet, 0,1 l/ha (superspreader adjuvant); subsequently it was considered necessary a manual hoeing for eliminating weeds emerged after the treatments. The diseases attack has not brought particular problems; in some years, and especially in conditions of abundant irrigation, they were identified, isolated, white mold attack (*Sclerotinia sclerotiorum*). Related to pests, frequently occurs red spider mite attack (*Tetranychus urticae*); for controlling that the best results were obtained with Apollo acaricide, 0.4 l/ha (clofentezin). In some years (2011), found a beet webworm moth attack (*Loxostege sticticalis*), fighting it was the most effective Cyperguard, 0,1 l/ha (cypermethrin); in 2013 there was an attack of soybean pod borer (*Etiella zinkenella*), which was controlled by spreading Karate Zeon, 0,15 l/ha (lambda-cipermetrin).

Key words: Tulcea County, Macin-Smardan polder, soybean crop, weeds, pests and diseases control.