Book Review

Zakharenko, V. A. 2003. Tendetsii Izmeneniya Kompleksov, Vidovogo Raznoobraziya, Vnutripopulyatsionnykh Struktur i Dinamiki Vrednykh Organizmov.[Tendencies of Complex Changes Species Diversity, Interspecies Structures and Dynamics of Noxious Organisms]. Rossisjkaya Akademiya Selskokhozyaststvennykh Nauk – Otdelenie Zashchity Rastenii. Moskva, 76 pp., ISBN 5-85941-067-0. (In Russian).

This is a very interesting review and analysis of changes in the plant pests composition, their abundance, and their economic importance in Russia. These changes are due to climatic, agronomic and particularly due to economic reasons that took place in Russia during the last decades.

Chapter 1 "Development of agriculture, formation of agroecosystems and their phytosanitary status" (p. 3–9) provides good information on history of farming development in the World and on the territory of the Russian Federation. Special attention was given to analysis of origin of weedy plants. In Table 1 such information is provided in respect to 75 weed species of global significance pointing their origin and number geographic regions, countries and crops affected.

Chapter 2 "Trends in the development of agroecosystems in Russia and their phytosanitary conditions" (p. 9–23) provides many interesting information on phytosanitary situation of crops during three historical periods: Tschar Russia, Soviet Union and present market economy development. Of special interest in this chapter is information concerning: (1) mechanisms and processes which determine development of complexes of pests; (2) review of quarantine organisms present and absent on the territory of the Russian Federation.

Chapter 3 "General phytosanitary situation and formations of noxious organisms in agroecosystems in the Russian Federation at the end of the XX and the beginning of the XXI centuries" (p. 24–66) is of special interest to all plant protection specialists. In a descriptive form and in a number of tables very important information is provided on weed plants (p. 24–30), plant diseases (p. 31–42), and plant pests (p. 43–66) including species composition, crops and areas affected, pest economic thresholds.

Chapter 4 "Economic analysis of phytosanitary situation in agroecosystems" (p. 66–73) summarizes information on economic crop losses caused by 258 species of weeds, pests and pathogens. In several tables information on potential losses caused by noxious organisms to main crops in Russia are presented and discussed.

In „Conclusions" (p. 73) the author concludes that potential losses on the agronomically used area of 93.3 million hectares in the Russian Federation – estimated in the "grain units" – are equal to 101.6 million tons of cereal grain. In these total losses participate weeds (39.3 mil. tons), pathogenic microorganisms (34.9 mil. tons) and animal pests (27.4 mil. tons).

I recommend this book to plant protection specialists and persons concerned with economic problems in agriculture.

Jerzy J. Lipa
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