

Spaar D. (ed.) 2001. *Posevnoy i Posadochnyy Material Selskokhozaystvennykh Kultur [Seed and Planting Material of Agricultural Plants]*. BML/Transform, Berlin, Vol. 1, 311 pp., Vol. 2, 380 pp. (In Russian)

This two volume multi-authored book has been prepared and printed as a result of a German-Russian program titled "Adaptation of Agricultural Education and Elevating Qualification in Russian Federation" financed by the German Federal Ministry of Consumer Protection, Food and Agriculture".

The book editor prof. Dieter Spaar invited twelve authors: S. Banadysev, F. Ellmer, G. Erbe, S. Grib, K. Jaster, G. Kratzsch, K. Krieghoff, A. Postnikov, W. Shchkalikov, P. Schuhmann, and A. Zakharenko to contribute to the book that is very well constructed and contains a great volume of information concerned with seed health and good phytosanitary condition of crops during vegetation.

Volume 1 contains the following six chapters covering the general aspects of biology and development of cultivated plants that have great effect on their phytosanitary conditions in the field and during storage.

Chapter 1 "Importance of seed and planting material" (p. 5–68), contains general information stressing obligatory use of qualified seeds and certified planting material.

Chapter 2 "Biology of cultivated plants" (p. 69–116) provides information on botanical features of cultivated plants as well as their agrotechnical and climatic requirements.

Chapter 3 "Quality of seed material and its evaluation" (p. 117–145) provides very useful information on sampling of seeds of cereals and other plants in order to determine their health status and checking for presence of pathogens transmitted through seeds. Most methods were developed by Plant Disease Committee of the International Seed Testing Association (ISTA).

Chapter 4 "Quality of seed potato" (p. 146–162) describes various diagnostic methods used to determine health state of tubers to be used for planting: ELISA, DAS, PAAG, nucleic acid hybridization, PCR, IF, stain techniques as well as plant species used as indicators.

Chapter 5 "Legal protection of varieties, seed and planting material of agricultural plants" (p. 163–211) describes regulations and procedures of plant variety registration in various countries in order to protect the authors or companies' rights to developed plant variety. This chapter contains also important instructions and recommendations for maintaining and production of qualified seeds and planting material.

Chapter 6 "Drying, cleaning, sorting and storing of seeds" (p. 212–278) describes various technologies and techniques used to produce high quality seed and planting material. Plant protection specialists will find in this chapter useful information on seed treatment with pesticides.

Chapter 7 "Features of production of seed and planting material of cultivated plants" (p. 5–174) provides detailed information, instruction and advice concerning requirements and technology of production of seed material of cereals, maize, broad beans, oilseed crops, clover, alfalfa, forage grasses, sugar beet and others. Special attention is given to production of seed potato tubers.

Chapter 8 "Features of production of seed and planting material for organic farming" (p. 175–179) provides information necessary to meet the requirements of EU directive 2041/91/EWG concerning organic and ecological agriculture.

Chapter 9 "Economic evaluation of production of seed and planting material" (p. 180–191) and chapter 10 "Trade of seed and planting material" (p. 192–197) discuss economic and financial aspects using examples based on costs and prices in Germany in German marks.

Volume 2 ends with the following useful appendices:

Appendix 1. Taxonomic position of cultivated plants in botanical systems (p. 198–201).

Appendix 2. Characteristics of flowers, fruits and seeds of cultivated plants (p. 203–237).

Appendix 3. Developmental stages of cultivated plants – BBCH coding (p. 238–302).

Appendix 4. Diseases of cultivated plants transmitted with seeds and planting material (viruses, bacteria, fungi) (p. 303–320).

Appendix 5. Chemical and biological pesticides used for seed treatments of cultivated plants (p. 321–339).

Appendix 6. Addresses of international organizations dealing with protection of varieties, seed and planting material, their trade and quality control (p. 340–344).

Bibliography provided in both volumes lists 602 references mostly in German and Russian.

It has to be emphasized that this book provides a great volume of information very useful to all persons dealing with plant protection of field crops, plant quarantine and quality control of seed plantations. For that reason this book should be present in each agricultural library.

Jerzy J. Lipa
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