

BARLEY SEED MICROFLORA AND THEIR INFLUENCE ON QUALITY INDICATORS

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Abstract

To obtain a high quality and quantity of yields is necessary to know the health status of the seed. For fifteen varieties of barley from South-East of Romania were performed analyzes for determination of the associated fungal load of seeds and setting the influence they have on the quality indicators. Classical method was used (PDA medium plate inoculation). Micromycetes proportion identified to be as follows: *Alternaria* spp fungal colonized seeds of most varieties, the minimum being 5% to Vanessa variety and a maximum of 60% at the Cardinal variety. *Fusarium* spp was present in 80% of varieties with a maximum of 60% grains affected Scarpia variety and a minimum of 10% based Alora and Andrei varieties. *Epicoccum purpurascens* was present on seeds, the maximum incidence were recorded for Madalin variety (30%). *Rhizopus* spp and *Stemphylium* spp micromycetes colonized seeds of 40% varieties with incidents between 10% and 40%. *Curvularia lunata*, *Oedocephalum* spp, *Penicillium* spp, *Pyrenophora* spp and *Trichoderma viride* colonized seeds in a smaller percentage under 35%. Germination of seeds recorded the lowest value of 94% for the Scarpia variety. The best germination was noted Andrew and Vanessa varieties in 99%. The physico-chemical analyzes showed a minimum hectoliter mass (kg/hl) 51.8 kg/hl of Maresal variety and maximum 73.5 kg/hl for Cardinal variety. The percentage of moisture ranged from 12.5% for Regent and to 15.7% at Cardinal. The amount of protein contained in barley seeds varied from 12.2% Universe variety to 15.7% for Andreea variety.

Key words: barley, fungus, variety, seed
