

Yield Parameters of Hulled Wheat Species, Grown in Organic Farming

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Abstract : As organic farmers are searching foregoing crops for horticultural crops, there is possible to choice neglected wheat species and also have a new market and sale opportunities. Concerning wheat, there are landraces so called hulled wheat species (einkorn, emmer wheat, spelt) comprising parts of collections of the world gene banks. The advantage of this wheat species are small demands on growing conditions and also droughtiness in conditions of changing climate. Our paper aims at presenting the results of the study and the assessment of spring wheat forms, four einkorn cultivars, eight emmer wheat cultivars, seven spelt wheat cultivars in particular, as compared to modern bread wheat variety. Small-plot trials were established at two different localities within the Czech Republic and Austria in 2009 and 2012. The results of the trials show that some varieties were inclined to lodging. On the other hand, they were resistant to common wheat diseases (mildew, brown rust). Hulls served as barriers and obstacles against the DON grain contamination. The yield rate was lower. The grains were characterized by a high proportion of protein in grain (up to 18.1 %). However, they may be difficult to use for common baking. Moreover, new food products demonstrating a different technological quality of the hulled wheat species have to be launched on the market. They will be suitable for regional marketing.

Keywords : organic farming, hulled wheat species, einkorn, emmer, spelt

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