Selection of minor wheat species cultivars and genetic resources for organic farming, with emphasis on baking quality parameters

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Wider collection of Triticum dicoccon (emmer), T. monococcum (einkorn), spring form of T. spelta (spelt) and obsolete, alternative forms of T. aestivum landraces and other genetic resources, cultivated in exact field small-plot trials under the conditions of organic farming was evaluated with the view of baking quality parameters and suitability for organic farming, in comparison with 3 check T. aestivum cultivars. The highest crude protein content in grain dry matter (16 - 18 %) was found in the spelt group, followed by einkorn and obsolete forms of T. aestivum (15 - 17%) and emmer (15 - 16 %);.check cultivars about 13 % in average. On the other hand, values of Gluten Index and SDS sedimentation test were in minor wheat species considerably lower in comparison with the check cultivars. The lowest values of GI (17 - 34 %) and SDS-test (15 – 27 ml) were found in einkorn, followed by emmer (GI 26 – 40 %, SDS-test 25 – 30 ml), obsolete forms of T. aestivum and spelt (GI 50 – 68 %, SDS-test 53 – 70 ml); check cultivars GI 70 – 78 %, SDS-test 59 – 72 ml). With regard to low values of SDS-test and GI (especially in einkorn and emmer), that indicated weak gluten, it is possible to recommend them especially for non-proofing and wholemeal products.