

Title Maize seed residues and losses during drying and processing
Author Pavlov M., Videnovic Z. and Stanisic Z.
Citation Journal on Processing and Energy in Agriculture, 14(2) p. 102-105, 2010.
Keywords *Zea mays*; Maize; Hybrids; Crop yield; Drying; Seed treatment; Postharvest losses; Processing losses; Purity; Serbia

Abstract

The ZP hybrid maize seed (Maize Research Institute Zemun Polje, Belgrade - Zemun, Serbia) production is organized each year by 10-20 seed growers. Maize seed drying and processing is performed in seven processing plants. The following factors affect the volume of seed residues and losses: moisture content of seed, genetic traits of hybrids, quality of a dryer equipment, technological norms in the course of seed drying and processing. Residues occur due to seed shelling during unloading, on conveyors, loading into bins, transport to shellers and seed spilling during processing and packing. Drying is performed down to 13% seed moisture. If the kernel comes off the ear and mixes with kernels of other hybrids such kernel is considered the residue. The ZP technology requires seed calibration into fractions of 6.5 to 11.0 mm. The amount of seed moisture and cob weight cannot be treated as a residue, as it is a biological property of the seed. The following amounts of hybrid ears were processed at the Maize Research Institute Zemun Polje, Beograde - Zemun (Serbia), during 2008: 491 t - ZP 341; 2433 t - ZP 434; 1263 t - ZP 704 and 4472 t - ZP 677 (total of 8659 t). The weight of ear, admixtures, shelled kernels and silk was measured. Based on obtained values, their participation in the total weight was determined.