

THE NEW POSSIBILITIES OF USAGE THROUGHOUT OF ANIMAL BY-PRODUCTIONS IN FERTILIZATION MAIZE

NOVÉ MOŽNOSTI VYUŽITÍ ZPRACOVANÝCH VEDLEJŠÍCH ŽIVOČIŠNÝCH PRODUKTŮ PŘI HNOJENÍ KUKUŘICE

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ABSTRACT

On the 1st November 2003 came into operation the clause of public notice n. 248/2003 Digest, which administer the low n. 91/1996 Digest, about feedstuffs, as amended by further Act is in Czech Republic prohibited using of bone-meal and meat bone-meal in feeding livestock. That caused margin more than 300 thousand tons of meal various sort and categories in Czech republic. The aim of my project was supervising and evaluating of income and amount of nitrogen substance in semiindustrial and parcelar experiment during fertilization of meat bone-meal (MBM), blood and industrial fertiliser (urea + amofos). I have placed 5 parcels of land of 0,85 hectare into semiindustrial experiment, which differed in dosages of meat bone-meal: 1. dosage 390kg industrial fertiliser DAM 390; 2. lower dosage 2 t/ha MBM; 3. middle-level dosage 4 t/ha MBM; 4. high-level 8 t/ha MBM and 5. controlled non fertilised parcele. I have placed 10 parcels of 5,5 m², which had been fertilised: 1. non fertilised – kontrol; 2. dosage 1,1kg MBM; 3. dosage 2,2 MBM; 4. dosage 4,1kg MBM; 5. dosage 5,2kg MBM; 6. dosage 5kg sterilised blood; 7. dosage 9kg sterilised blood; 8. dosage 0,4kg industrial fertiliser; 9. dosage 0,8kg industrial fertiliser and 10. dosage 0,4kg industrial fertiliser + dosage 2,2kg MBM. The highest income of semiindustrial experiment have been found in parcel n.3 of dosage 4t/ha MBM, that was 44% more than in kontrol parcel. In higher dosage has been shown redundance of nutrients, which left without usage. The contain of nitrogenous substances in seed of maize hasn't been very different and altenated from 6,82 to 7,18%. In parcele experiment had found out the highest income in parcele n. 10 with combinated dosage MBM and industrial fertiliser of 109% more than control parcele. Completaly has also other parcels n. 3, 4, 6, 7 and 9 riched more than double increase of income and it was because of that dosages of fertiliser were very overlarged for the reason of riching filiation. The contain of nitrogenous substance had been in parcelar experiment measured hiogher so that in major part took over than 9% and the most in parcele n. 10 where have been measured 10,15% nitrogenous substance in maize seed. Experiments has clearly achieved that meat bone-meal is high quality fertilization, that also validated Direction of commision (ES) n. 181/2006 from 1. February 2006, when is legislatively allowed application of meat bone-meal in the form of ground supplements.

Key words: meat bone-meal, maize, fertilization, nitrogen, yield, nitrogenous substance