
FINAL REPORT

To:

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Effects of MycroNutrient Casing Supplement on Mushroom Yield, Quality and Bacterial Blotch Disease

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Summary

The effect of applying a casing supplement (MycroNutrient) on mushroom cropping was compared with calcium chloride (CaCl_2) solution and a water control. The applications were made twice: (early) at casing and at 'pea-size' mushroom pins or (late) before airing and before harvesting the first flush.

After 26-day and 35-day cropping periods, the total marketable yield from the MycroNutrient treatment was significantly higher (5.8% in two flushes and 4.3% in three flushes) than from the control and CaCl_2 treatments; this was due to a higher (10.0%) yield in the first flush. The mushrooms in the MycroNutrient treatment were consistently 1-2 days earlier in all three flushes than in the control and CaCl_2 treatments. This meant that after shorter cropping durations, the mushroom yield from the MycroNutrient treatment was 12.4% higher in 24 days and 8.5% higher in 33 days than from the other treatments. At least the same mushroom yield was therefore obtained with the MycroNutrient treatment after 24 or 33 days as was obtained with the control or CaCl_2 treatments after 26 or 35 days. The late applications of MycroNutrient resulted in a slightly higher second flush than the early applications. The incidence and severity of blotch disease were low in all treatments (about 5% slightly blotched mushrooms).

The dry matter content of mushrooms from the late MycroNutrient treatment was higher than that from the late control and CaCl_2 treatments, and from all of the early applications, in the first flush. The dry matter contents of mushrooms from the MycroNutrient and CaCl_2 treatments were higher than those of the control treatment in the third flush. The total harvested mushroom dry matter tissue (yield x % dry matter content) was significantly higher for the MycroNutrient treatment than for the control and CaCl_2 treatments. Third flush mushrooms from the MycroNutrient and CaCl_2 treatments were significantly whiter and less yellow than those from the control treatment.