

Utilization of electric pulse power for agricultural products cultivation: forest environment control

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ABSTRACT

Effect of electric pulse stimulation was tested on the fruiting body formation of valuable mushroom *Tricholoma matsutake* in the field of its natural habitat. After applying the electric stimulator to the specific area of pine forest we found that the treatment stimulated the fructification of *T. matsutake*. The most valuable findings of the study was that only our treatment plots showed fruiting body formation whereas the control plots and the whole natural habitats of our study area showed zero production of this mushroom during the same time. From the point of view of mushroom production, our experiment shows that fruiting body production can be upgraded by using pulsed power as an electrical stimulation in the field of its natural habitat. These findings confirm the effectiveness and the significance of pulsed power technology for the improvement of *T. matsutake* fruiting body production in its natural habitat.

Keywords: ectomycorrhizal, *Tricholoma matsutake*, fruit body, electric pulse stimulation