

**Title: TOMATO PLANTS DEVELOPMENT IN POST-GROWING MUSHROOMS OF COMPOUNDS *Agaricus subrufescens* AND *Agaricus bisporus***

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**Abstract:**

The compounds of production of edible mushrooms is presented as waste becoming sources of contamination for the other cultures, however this material receives metabolism of substances from the fungus and is rich in organic matter. Tomato it is rich in vegetable vitamins and minerals, in addition to their use is recommended in the prevention of cancer and neutralizing free radicals present. The use of such waste for the production of tomato seedlings presented as the exhausted compound reuse alternative. This study aimed to evaluate the production of tomato seedlings and their physical parameters, using the post-cultivation of compounds mushrooms *Agaricus subrufescens* and *Agaricus bisporus*. For this study, the treatments were: T0 - control (commercial vegetable cultivation substrate); T1.1 - *Agaricus bisporus* (100% post-cultivation composite), T1.2 - *Agaricus bisporus* (50% post-cultivation compound and 50% commercial compound), T2.1 *Agaricus subrufescens* (100% post-cultivation composite), T2.2 - *Agaricus subrufescens* (50% post-cultivation compound and 50% commercial compound). The tomato seedlings were subjected to the following tests: germination, shoot length, number of leaves, root length. Eight days after sowing the seeds sown during the two treatments composed of *Agaricus bisporus* had 50% seedling emergence, while seedling emergence in the other treatments were around 25-29% did not differ statistically. Regarding the length of shoot seedlings grown in compost *Agaricus bisporus* presented averages between 44-49 cm jutting up to the treatments T0, T2.1. However, the T2.2 treatment was superior to other treatments. Following the pattern of the variable length of the shoot, the variable number of sheets (unit) and root length (cm) showed the same behavior between treatments. Thus, it is possible to conclude that tomato seedlings grown in the post-production medium composed of *Agaricus bisporus* when compared to post-production medium composed of *Agaricus subrufescens*, has a higher viability of physical parameters of the plant. It is necessary a detailed study of the chemical composition of the compounds studied to better assess the availability of nutrients to the plant.

**Keywords:** tomato seedlings, waste, physical parameters

**Development agency:** FAPEMIG, CNPq and CAPES.