Journal of Fungi

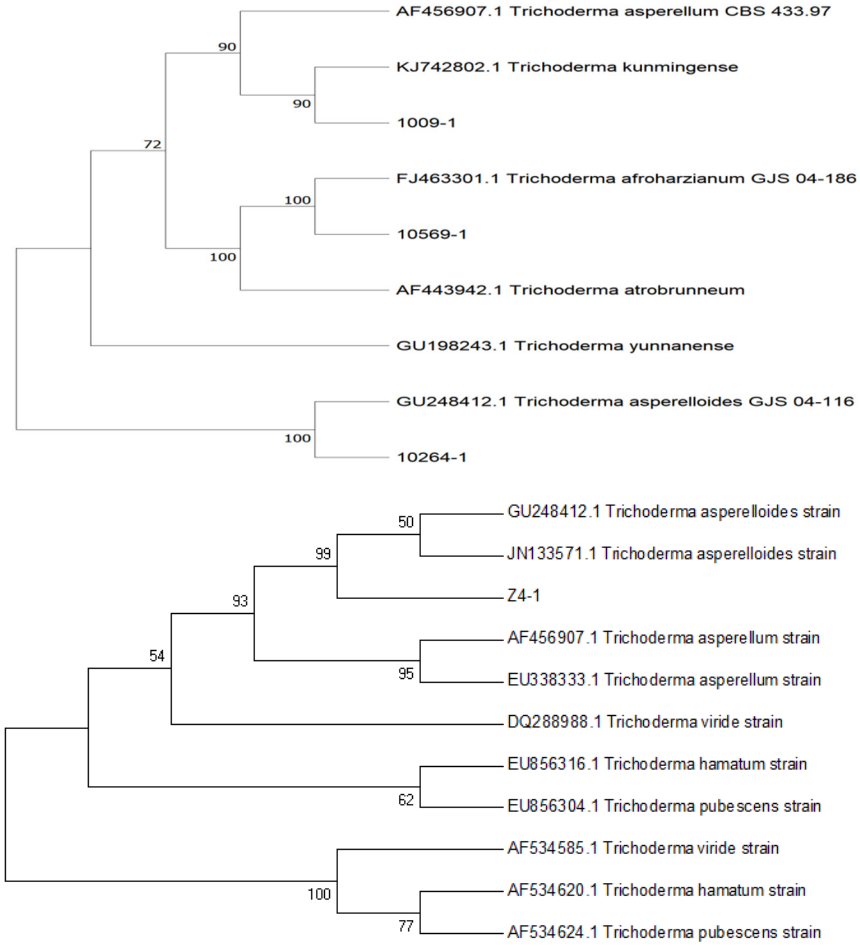
MDPI

Supplementary materials 1

1. Fungal Strains

| Strain | Strain number | Collection location |
|---|---|---|
| T. cf.asperelloides | CTCCSJ-A-CM100Z4-1 | Shanghai Chongming Wenzhou Mandarin bark |
| T. cf. afroharzianum | CTCCSJ-W-RW10569-1 | Hainan - Wetland - soil |
| T. cf. kunmingense | CTCCSJ-A-GDFS1009-1 | Guangdong - farmland - soil |
| T. cf. asperelloides | CTCCSJ-W-SBW10264-1 | Hainan - Wetland - soil |

We tested the strains for salt tolerance, high-temperature tolerance and chitinase activity. High-temperature-tolerant Trichoderma Z4-1, high-salt-tolerant Trichoderma 1009-1, high-chitinase-producing Trichoderma 10569-1, and the mixed fermentation of Trichoderma echinospora 10264-1 and the abovementioned Z4-1, 1009-1 and 10569-1 were the best for seed germination. The above four strains were selected for subsequent experiments.The accession number of 1009-1 is OP799503;The accession number of 10264-1 is OP799504;The accession number of 10569-1 is OP799505;The accession number of Z4-1 is OP799506.




Z4-1 was identified as *Trichoderma* asperelloide.1009-1was identified as *Trichoderma* . cf. Kunmingense.10569-1 was identified as *Trichoderma*. cf. Afroharzianum.10264-1 was identified as *Trichoderma* . cf. asperelloides

Supplementary materials 2

2. Basic characteristics of the ten carriers

Pregelatinized starch: Sodium carboxymethyl starch (C6H10O5)n (n=300~1000) containing 5% free amylose, 15% free amylopectin and 80% unmodified starch; pH=4.5-7.0.

β-Cyclodextrin: Cyclomaltose and cycloheptadrin composed of 7 glucose residues in the β-A ring formed by the binding of 1,4-glycosidic bonds; C42H70O35.xH2O, pH=5.0-8.0.

XW-maltodextrin: Starch, polysaccharides, tetrasaccharide or oligosaccharides mixed with the tetrasaccharides maltose and glucose (C6H10O5)n, pH=4.5-6.5.

LG-maltodextrin: Starch, polysaccharide, tetrasaccharide or oligosaccharide above tetrasaccharide, maltose and mineral mixtures such as glucose, calcium and iron; (C6H10O5)n, pH=4.5-6.5.

Dextrin: Starch, polysaccharide, tetrasaccharide or oligosaccharide above tetrasaccharide, and small amounts of maltose and glucose, calcium and iron mixture; (C6H10O5)n.

Jiayi powder: A high-tech composite made of a variety of minerals, inorganic salts, modified starch and other auxiliary materials through special processing.

Jiawei powder: Minerals and soluble starch; pH=5.5-8.0.