

The Effects of Composite Alkali-Stored Spent *Hypsizygus marmoreus* Substrate (SHMS) on Carcass Quality, Rumen Fermentation, and Rumen Microbial Diversity in Goats

Supplementary Materials:

Table S1. *Hypsizygus marmoreus* medium and the nutritional components of the mushroom bran (DM basis, %) .

| Medium formulation / % | | Nutrient composition | |
|------------------------|--------|-------------------------|-------|
| Cottonseed hull | 50.00 | Dry matter | 94.85 |
| Corn cob | 10.00 | Ether extract | 1.82 |
| Wheat bran | 10.00 | Crude protein | 13.16 |
| Bagasse | 10.00 | Acid detergent fiber | 41.84 |
| Sawdust | 10.00 | Neutral detergent fiber | 54.75 |
| Soybean meal | 5.00 | Acid detergent lignin | 17.26 |
| Corn | 5.00 | | |
| Total | 100.00 | | |

Table S2. Report on Pesticide Residues, Heavy Metal Residues and Aflatoxin Residues in *Pleurotus ostreatus*

| Items | Results |
|--|-------------------|
| C ₉ H ₉ N ₃ O ₂ /(mg/kg) | Undetected (<0.1) |
| C ₂₂ H ₂₂ NO ₃ /(mg/kg) | Undetected (<0.1) |
| C ₂ H ₈ NO ₂ PS/(mg/kg) | Undetected (<0.1) |
| C ₄ H ₇ Cl ₂ O ₄ P/(mg/kg) | Undetected (<0.1) |
| C ₄ H ₈ Cl ₃ O ₄ P/(mg/kg) | Undetected (<0.1) |
| C ₆ H ₆ Cl ₆ /(mg/kg) | Undetected (<0.1) |
| C ₁₃ H ₉ Cl ₁₅ /(mg/kg) | Undetected (<0.1) |
| Pb/(mg/kg) | Undetected |
| As/(mg/kg) | Undetected |
| Hg/(mg/kg) | Undetected |
| Cd/(mg/kg) | Undetected |
| Cr/(mg/kg) | Undetected |
| B ₁ /(μg/kg) | Undetected |