

## CLAIMS

1. A process for producing a packaging system for banana products, comprising the steps of:
  - 5 providing a biochar material selected from the group consisting of carbonized rice hull and activated carbon; packaging the biochar material into a perforated polypropylene sachet;
  - 10 packaging a banana product into a primary packaging made of polypropylene;
  - inserting the packaged biochar material into the primary packaging; and
  - sealing the primary packaging to obtain the packaging system.
- 15 2. The process of claim 1, wherein the perforated polypropylene sachet has a thickness of about 25 microns, an average perforation diameter of about 1 mm, and an average total perforation count of about 1,064.
- 20 3. The process of claim 1, wherein the primary packaging has a thickness of about 20 microns and dimensions of about 380 mm × 260 mm.
- 25 4. The process of claim 1, further comprising the step of storing the packaging system at about 13 °C for at least 21 days.
- 30 5. The process of claim 1, wherein the carbonized rice hull is obtained by carbonizing rice hulls on a heated metal surface, cooling in a sealed container for about 24 hours, and milling to a particle size of about 149 microns with a

bulk density of 0.15-0.19 g/ml and a moisture content of 3.3-3.8%.