

**PROCESS FOR PRODUCING PACKAGING SYSTEM FOR BANANAS WITH
BIOCHAR-BASED ETHYLENE ADSORBER**

ABSTRACT OF THE DISCLOSURE

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The present utility model relates to a process for producing a packaging system for bananas incorporating a biochar-based ethylene adsorber to delay ripening. The process comprises providing a biochar material selected from carbonized rice hull
10 or activated carbon; packaging the biochar material into a perforated polypropylene sachet; packaging a banana product into a primary polypropylene packaging; inserting the packaged biochar material into the primary packaging; and sealing the primary packaging. The primary packaging may have a thickness of
15 about 20 microns and dimensions of about 380 mm × 260 mm, while the sachet may have a thickness of about 25 microns, an average perforation diameter of about 1 mm, and about 1,064 perforations. The carbonized rice hull may have a bulk density of 0.15-0.19 g/ml and a moisture content of 3.3-3.8%. The process produces a
20 packaging system that adsorbs ethylene, maintaining peel greenness and extending banana storage life.