

Request Information

Permalink

Air-Distributor For An Almond Stockpile Heated And Ambient Air Dryer (SHAD)

Tech ID: 33704 / UC Case 2023-512-0

ABSTRACT

Researchers at the University of California, Davis ("UC Davis") have developed an air distribution apparatus that allows for more efficient drying of stockpiled almonds.

FULL DESCRIPTION

After harvesting, it is essential that almonds be adequately dried. One common method of almond drying involves the use of a stockpile heated and ambient aid dryer (SHAD), which is preferred over conventional windrow drying. One embodiment of a SHAD involves placing the harvested almonds on top of a frame (such as an A-frame). However, the use of SHADs is often hampered by insufficient air distribution within the stockpile, resulting in uneven and/or inadequate drying of the almonds. Inadequate drying increases the risk of almond loss due to mold and can negatively affect the flavor or texture of the almonds.

In order to address this problem, researchers at UC Davis have developed a novel apparatus that, when used in conjunction with a SHAD, improves the distribution of air within the stockpile. This, in turn, improves drying, reduces loss due to mold, and improves the quality of the final product. The apparatus can be configured, for example, to ensure that the middle and tallest section of the stockpile receives the highest airflow.

APPLICATIONS

- ▶ Direct almond harvest drying in an outdoor stockpile.
- ▶ Potential use in stockpile drying for other commercial nuts.

FEATURES/BENEFITS

- ▶ Improved airflow within stockpile, resulting in more efficient drying.
- ▶ Enables energy savings.
- ▶ Airflow rates and volumes can be tailored to different-sized stockpiles.

PATENT STATUS

Patent Pending

CONTACT

Byron N. Roberts
bnroberts@ucdavis.edu
tel: 530-754-8689.



INVENTORS

- ▶ Donis-Gonzalez, Irwin R
- ▶ Mayanja, Ismael K

OTHER INFORMATION

KEYWORDS

almonds, agriculture, nuts, harvesting

CATEGORIZED AS

- ▶ **Agriculture & Animal Science**
 - ▶ Devices
 - ▶ Other
 - ▶ Processing and Packaging
- ▶ **Engineering**
 - ▶ Other

RELATED CASES

2023-512-0