

# A NEW SYSTEM OF PINE SEED EXTRACTION, DEWINGING AND CLEANING

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## SYSTEM DESIGN

Wirebound pallet boxes are used for handling, shipping, and storing cones prior to processing. These boxes have a capacity of about 20 bushels of green loblolly cones. The use of a single container greatly simplifies and reduces the cost of the entire storage, shipping and handling operation.

The transfer of cones from boxes to the drying trays can be done by 1 man operating a forklift. The cones are dumped into interlocking drying trays which permit good air circulation and also prevent mixing cone lots. These drying trays can be stacked to accommodate either large or small lots of cones. The trays are portable and easy to handle. This tray system eliminates the need for a separate drying building and conveyors to transfer the cones to the cone tumbler.

## SEED EXTRACTION AND CLEANING

Drying trays are dumped into the cone tumbler using the forklift. Extracted seeds are then sent to a wet dewinger via a conveyor system. Partially opened cones are stored in wire-bound boxes and may be returned to the tumbler in order to extract more seed.

A single machine is then used for scalping, cleaning, and removal of empty seeds.

The advantages of the system include simplicity of operation, minimal space required, flexibility to expand or reduce drying capacity, and minimal investment in equipment. Under normal drying schedules 1 man with a forklift equipped with rotating forks can operate the entire system.

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