Harvesting, Transport, Processing & Storage

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Harvest preparation

• Prevent water deficits in Aug - Sept.
• Prevent NOW infestation of early splits.
• Plan harvesting & hulling availability.
Proper nut maturity

- Easy to squeeze nut out of hull.
- Nuts easily removed with light shaking.
Harvesting Young Trees

• Spread tarps 5’ beyond canopy.
• Knock trunk w/ mallet or pole near clusters.
• Remove large trash and dump tarps into bins.
• Bins hold 1000 lbs
Harvesting Mature Trees
> 6yrs old
Catch frame
Transfer cart
Bin dumping
Unloading at processor
Transport delays

• Good quality nuts with intact hulls can be held for 48 hr in truck with minimal staining.

• Nuts with damaged/tattered hulls are damaged in 8 hr at 104°F or 24 hr at 86°F.
Abrasive huller
Aflatoxin

- Nuts that freely separate from shell
- Smaller than 40 per ounce
- Severe shell staining
- Obvious insect damage
- Floaters
Float Tank

- Removes light nuts which are unfilled or partially filled
- Light nuts are dried separately.
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Two Stage Drying

- Hot air (180°F) drying to 12% - 13% moisture.
- Unheated or low temperature air bin drying to 4% - 6% moisture.
Column Dryers
Continuous belt dryer
Bin Drying & Storage
Bin drying

- Operate fans continuously to cool nuts after initial drying.
- After cooling operate fans when RH <60% to 80%.
- Use and aeration controller to automatically operate fans.
Prevent insects and decay in storage

- Keep nut temperature below 65°F to control insects.
- Keep nut moisture below 8% (<60% RH) to control fungi.
- Without refrigeration, fumigation will likely be needed in the summer to control insects.
Bin aeration

- Ventilate bins to cool nuts in the fall and warm in the late spring.
- Keep nut temperature within 10°F of the monthly average air temperature. This prevents high moisture pockets.
- Operate fans when relative humidity is between 60% to 80%.
- Consider installing an aeration controller.
Refrigerated storage

• Storage at <40°F will slow quality loss in long term stored nuts.