



# Seed Cleaning Tips and Tricks

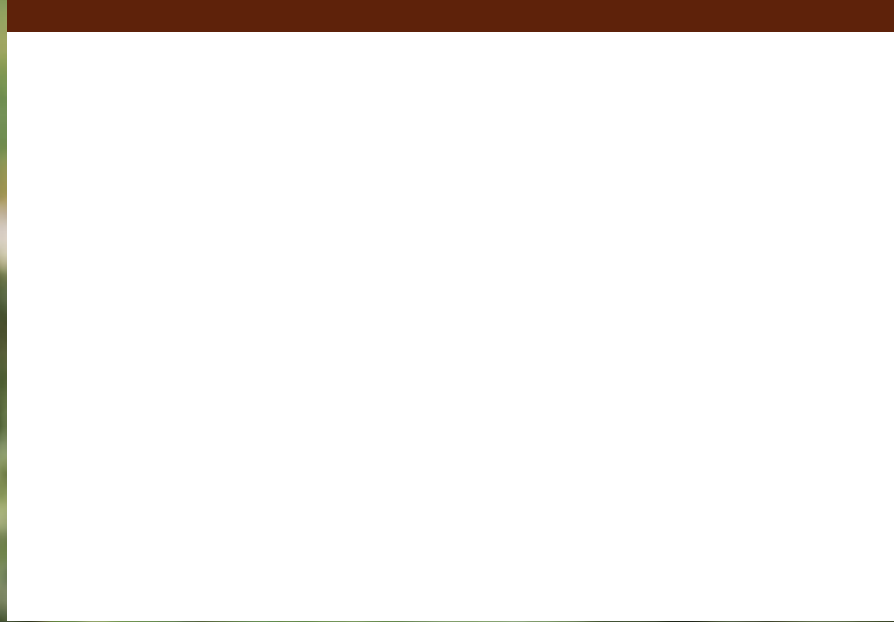
# Timing The Harvest





# Gauging Harvest By Plant Color







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**Can be OK to harvest when green if necessary**



**Cut whole plants  
and windrow to  
allow for fullest  
maturation**





# Threshing

























## **Cleaning**

- **Screening: *size***
- **Winnowing: *weight, gravity***
- **Floating**
- **Use all of your senses**



# Separate Chaff and Seeds

Works well with heavy seeds in bracs and pods





# Screening

- Separation by size
- Remove larger chaff – “top screening”
- Remove smaller debris – “bottom screening”
- Separate seed sizes
- Screening materials

# Screens









# Sort seed by Size







# Winnowing

Separation by Weight

Consider: Airflow, consistency, falling distance, multiple bins



# Flat vs Round Containers



**Light Seed and Chaff**

**Good, Heavy Seed**











**Last Resort: Hand Picking**



# Finishing Touches



**Floating Seed**









**Carter Day Air Aspirator**



# Home Made Air Column Separator



# Custom Made Winnow Machine



al development and stewardship  
sources of agricultural seed

# Winnow Wizard – Luterra Enterprises, LLC



# Spiral Separator





# Table Top Vibrator Separator









# Hydronic Seed Dryer

By Mark Luterra, Luterra Enterprises LLC ([luterra.com](http://luterra.com))



## Harvesting Techniques by scale and crop types

3 Basic Paths



Dry Seed Crops

Pull type threshers or pull type combines

Buckets, Sheets, Fans or  
Stationary Threshers

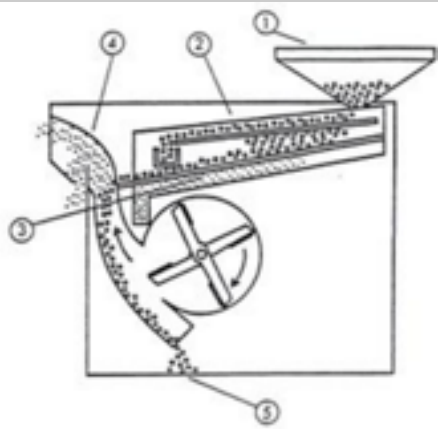
Self-propelled Combines



# Seed Cleaning

## Cleaning Overview

- Screen Cleaner
- Aspirators
- Gravity Tables
- Indent Separators
- Brush Machines
- Spiral Separators
- Color Separators
- Precision Sizers



Scale	Hand Harvesting 0 – 2 acres	Hand + Small Machine Harvesting 2 – 10 acres	Machine Harvesting 10 + acres
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# Gravity Table

## Separation by Density

- Full, heavy objects climb the deck
- Light objects and duff move down.
- Air lifts the seeds
- Decks have different textures surfaces



# Gravity Table

## Operating Tips

1. Absolutely essential to keep the table fully covered
2. Must have STEADY input for reliable, even distribution across the deck surface
3. Make sure you have the correct deck for the seed you are using
4. If seed is not flowing well, check the air volume and vent screens

Select the correct size machine for your volume of seeds.

Good separation takes a few minutes at full volume and correct adjustment to begin working well; seeds have to move across the whole deck.



# Thank You!

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# Wet-seeded crops

## Solanaceae

### Fermentation?

Tomato

Yes

Pepper

No

Eggplant

No

## Cucurbitaceae

Squash & Pumpkin

No/Yes

Cucumber

Yes

Melon

No/Yes

Watermelon

No/Yes

# Fully vine-ripened Tomato & Pepper fruit is best for seed





# Millett vegetable Wet Seed Separator



# THROUGH THE SLUICE





Sun-dried seed

# Squash & Cucumber Seed Curing: 1-3 Months



# PTO-Driven Hammermill



# Mixing fermented pulp and seed





















**Seed is the foundation of food**

