3. Farm Infrastructure

Practice: Low Growing Crop - Sweet Potatoes

- Low growing sweet taters
- All purple sweet potato

Why? Can easily drive tractor over row

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Natural Resources Conservation Service
3. Farm Infrastructure

Practice: Low Growing Crop - Sweet Potatoes

- Low growing sweet taters
- All purple sweet potato

Why? Can easily drive tractor over row
3. Farm Infrastructure

Practice: Low Growing Crop - Eggplant

- Low growing eggplant

Why? Can easily drive tractor over row
3. Farm Infrastructure

Why? We alternate cash and alley rows every 3 years

Practice: Rows on 30” Centers

- Alley row and cash row on 30” centers
- Every row has buried irrigation outlet for driptape
3. Farm Infrastructure

Practice: Roadways and Critical Areas Planted in Cover Crops

Why? Protects and enriches the soil and prevents erosion.

- Drivepath planted in Dutch white clover and perennial rye

NRCS
Practice # 561: Heavy use area protection
Practice #342: Critical area planting
3. Farm Infrastructure

Practice: Walk in cooler

- 20’ container converted to a cooler
- Insulated and secure

Why? Efficient, low cost cooling assures food safety

Coolbot Unit

- Coolbot technology
- Uses a regular air conditioner
- Low cost
- Very efficient

20’ steel container
4. Pest and Weed Management

Practice: Companion Planting for Pest Suppression

Why? Many flowers, alliums and herbs repel insect pests

- Garlic planted under peach trees
- Repels peach tree borer
- Marigolds in tomatoes
- Repels whiteflies and nematodes

Garlic sprouts
French marigolds
4. Pest and Weed Management

Practice: Insect Pests Traps and Lures

- Lures attract specific insect pests
- Sticky traps capture pests
- Sticky trap without a lure is a monitoring tool for presence of pest

Why? A natural control not toxic to beneficial insects
4. Pest and Weed Management

Practice: Intercropping

Why? Intercropping confuses insect pests

- Different crops in each row
- Disrupts the feeding and reproduction cycles of pests
- Increases diversity supporting beneficial insects

Practice # 585: Strip cropping
4. Pest and Weed Management

Practice: Habitat for Beneficial Insects

- Ladybugs eating aphids
- Spider eating grasshopper

Why? A natural control not toxic to beneficial insects
4. Pest and Weed Management

Practice: Organically Approved Pesticides

Why? Controls insect pests naturally

- Pure oils such as Neem, Karanja and Castor
- Soaps such as Dr. Bronner’s
- Biological agents such as:
  - Beauveria fungus
  - Nosema fungal spores
  - Bacillus thuringiensis bacteria
  - Spinosad bacteria
4. Pest and Weed Management

Practice: Weed Suppression- Landscape Fabric

- Fabric reusable, lasts 5 years
- Used in all cash crop rows
- Blocks weeds
- Drip tape laid under fabric
- Burning holes for transplants

Why? Fabric suppresses weeds in cash rows
Practice: Weed Suppression - Straw Mulch

Why? Straw mulch suppresses weeds, retains moisture, enriches soil

- Straw mulch around garlic
- Straw mulch around beans

NRCS
Practice # 484: Mulching
Practice: Weed Suppression- Wood Chip Mulch

- Wood mulch around trees in orchard
  Note breakdown of chips turning into soil

Why? Wood chip mulch suppresses weeds and produces rich fungal dominant soil
5. Soil Nutrient Management

Practice: Biological Inoculants

• Azotobacter bacteria
  - solubilizes phosphorous in soil (side drench)
  - extracts nitrogen from the air (foliar spray)

• Foliar spraying young plants

Why? Biological inoculants “super charge” the soil with helpful microbes
5. Soil Nutrient Management

Practice: Green Manure

- Residue chopped up into small pieces
- Evenly distributed on the ground
- No-till drill through the residue

Why? Residue left on the ground becomes food for the microbes in the soil
Practice: Compost

Compost from certified organic source.

Why? Compost is a biological soil amendment containing billions of microbes

Compost added to all cash crop rows