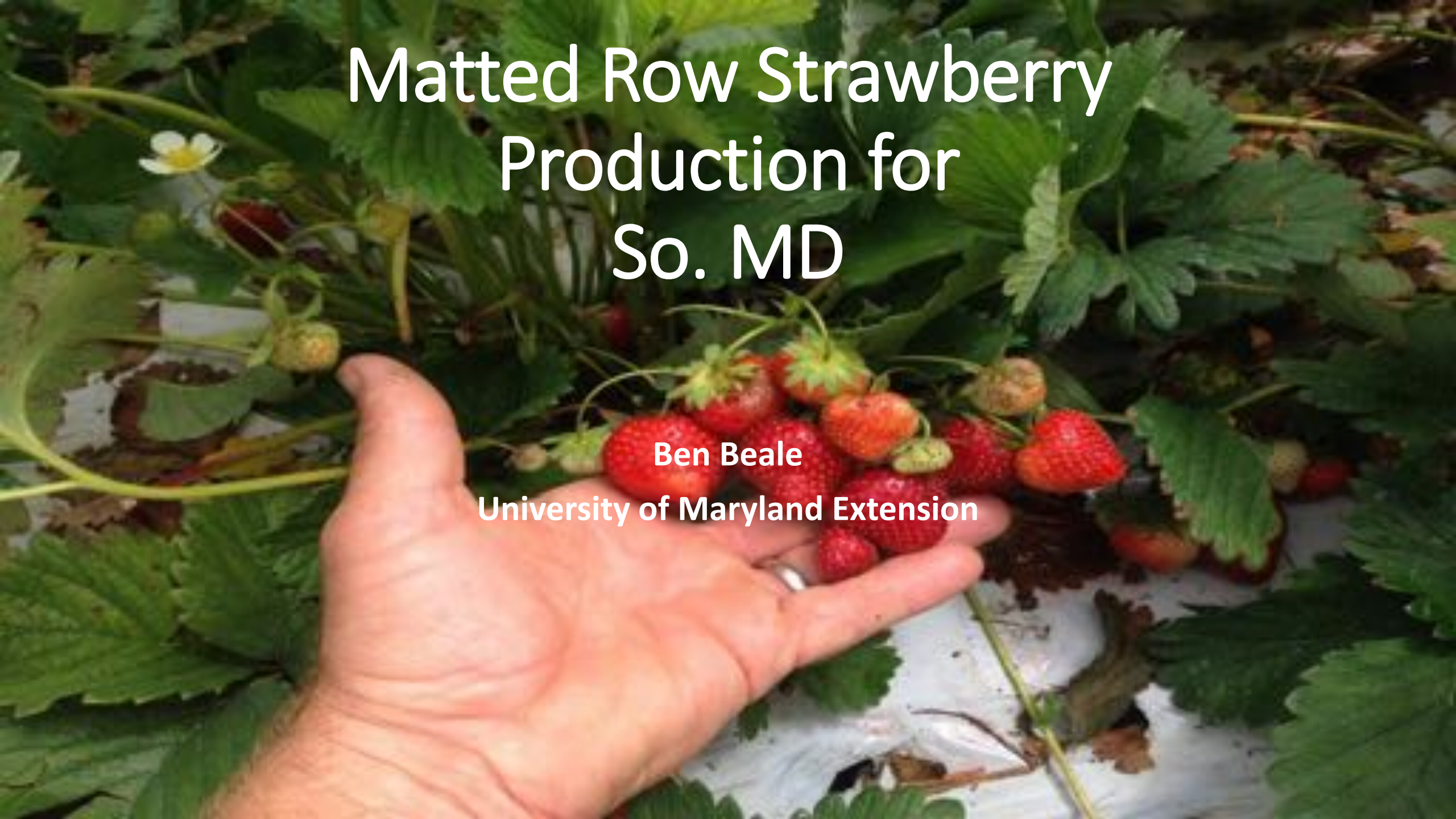


Matted Row Strawberry Production for So. MD

Ben Beale

University of Maryland Extension

Two Primary Production Systems

Plasticulture

Matted Row

Matted Row Production Systems

- dormant bare root strawberries planted in the spring on wide spacing
- plants are allowed to produce runners and fill in the row with daughter plants
- harvest in June and July in the second and proceeding years
- Matted row system yields less than half of the plasticulture system, but have much lower establishment cost

Matted Row Production Calendar (Establishment Year) :

Prior Year: Eliminate any perennial weeds and reduce annual weed seed bank. A major limitation of the matted row system is the ability to control weeds. Soil test and adjust pH to 6.5.

March: Prepare soil for planting. Apply herbicide to kill existing vegetation. Order certified dormant bare root plants. Fertilize with 30 lbs. N and P and K according to soil test.

April: Plant bare root strawberries in rows spaced 3 to 4 foot apart. In row spacing is typically 18 to 24 inches. A 3 foot row to row and 24 inch in-row spacing will require 7300 plants. Apply residual pre-emergent herbicide.

May: Remove any flowers or fruit during the first year. Scout for insect pest and weeds. Side dress additional N fertilizer at rate of 20-30 pounds per acre.

June-August: Irrigate as needed. Promote the establishment of daughter plants through the matted row. Daughter plants establishing in the row middles can be removed.

September: Renovate row middles.

December: Apply a thick layer of weed free straw over the entire planting area. Laves should just be visible under the straw.

Matted Row Production Calendar (Harvest Years) :

April: Pull back straw into row middles. Fertilize with 30 lbs. N and P and K according to soil test

May/June: Prepare for harvest. Scout for mites, aphids and crown rot or root rot diseases. Apply crop protectants as needed. Bloom sprays are the most critical. Harvest fruit regularly.

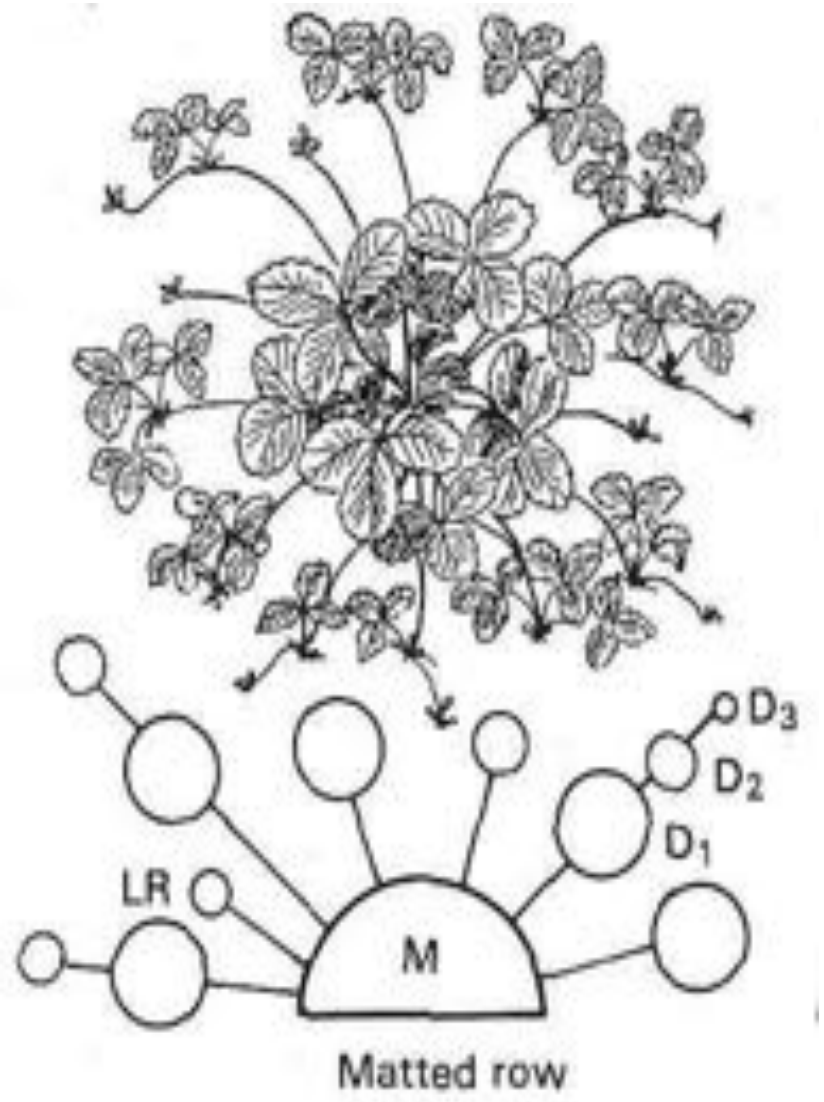
June/July: Renovate immediately after harvest. This involves applying a post emergence herbicide (2,4-D), mow closely to the ground, and narrow the bed row to a width of 8 to 12 inches. Apply 30 lbs. of N to stimulate new growth and apply a pre-emergent herbicide for weed control.

Summer/Fall: Continue to irrigate as needed. Scout for mites, aphids and crown rot or root rot diseases. Apply crop protectants as needed.

December: Apply a thick layer of weed free straw over the entire planting area. Leaves should just be visible under the straw.

Matted Row

- spring planted
- low initial plant density
- runners fill in rows
- planting duration of 3-5 years
- Yield depends on the number of daughter plants



Matted Row

Advantages

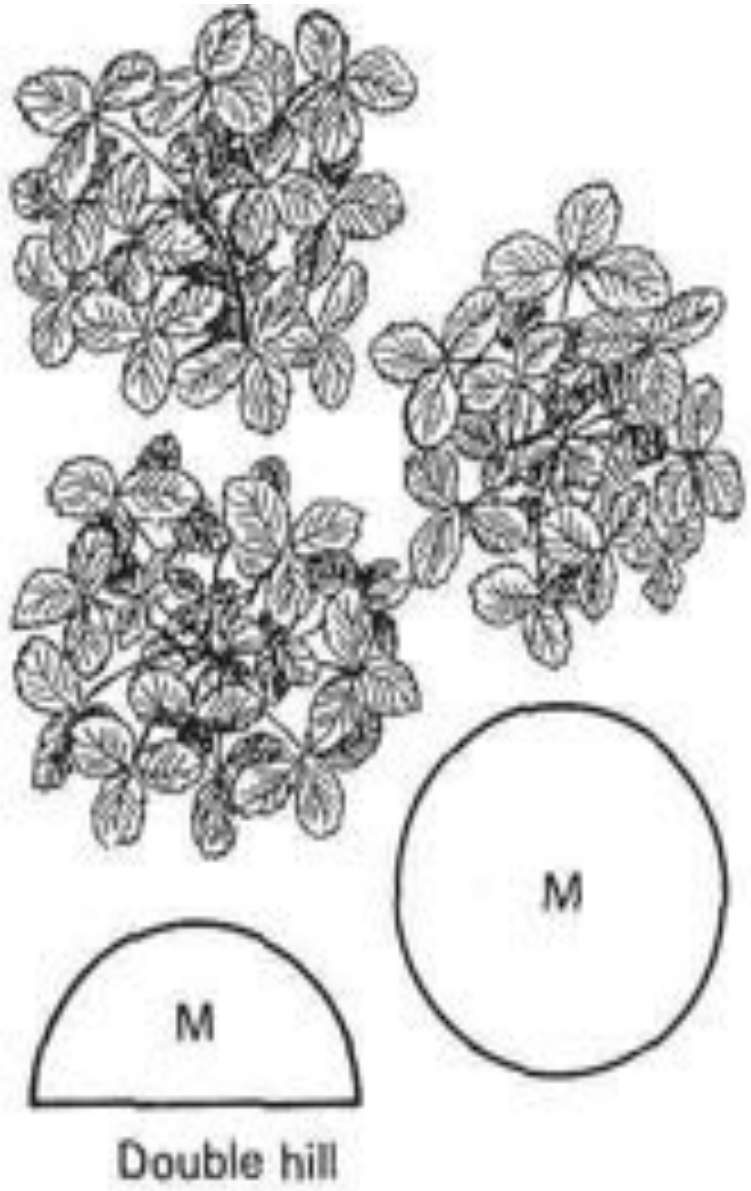
- low planting costs
- conditioning of nursery plants not critical
- adapted to colder climates

Disadvantages

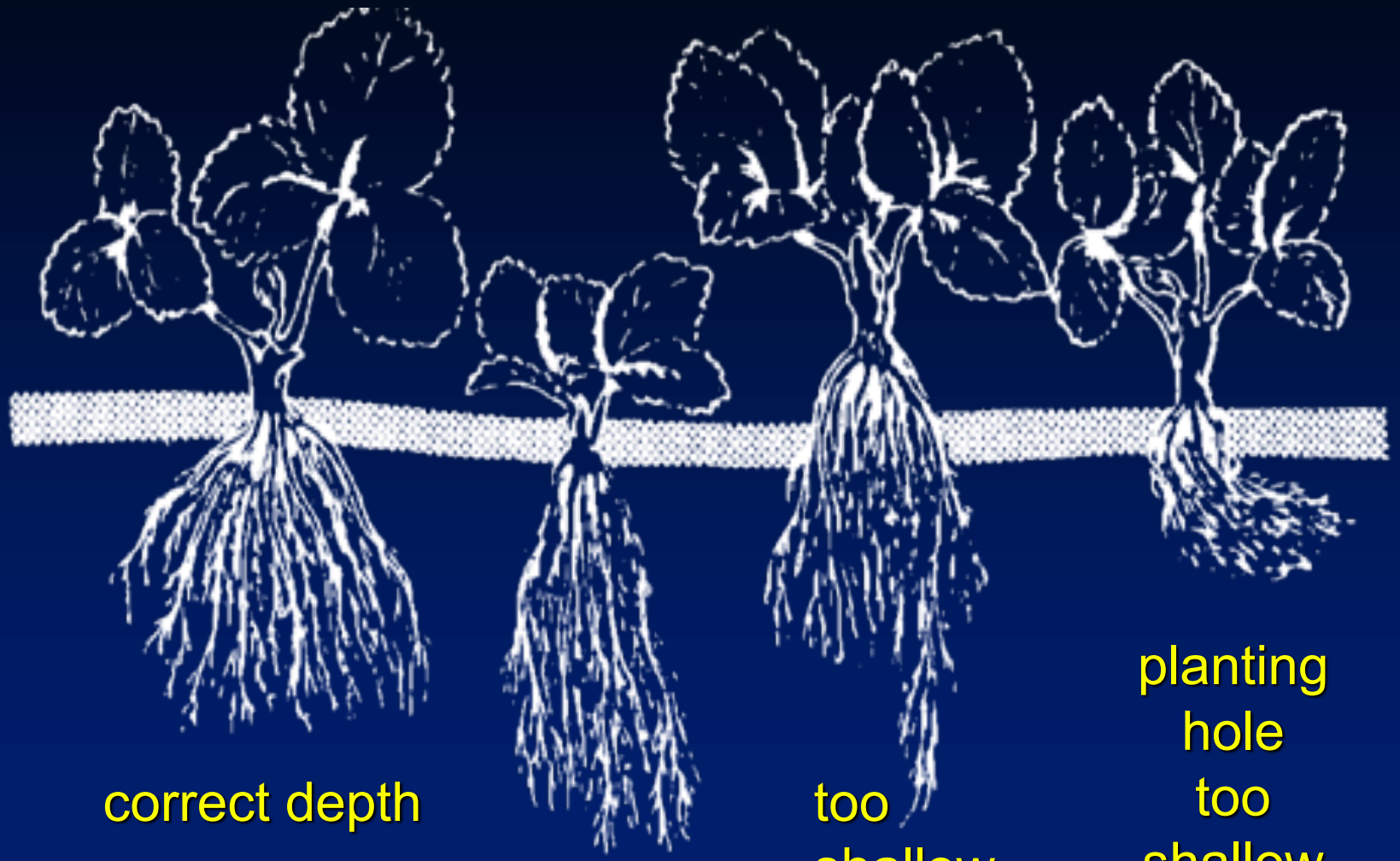
- weed problems
- smaller fruit and lower yields in successive years
- soil-borne pathogens
- more difficult to harvest

Alternative Hill System

- Developed for warm climates to compensate for poor runnering
- Fall planted at close spacing
- Runners removed
- Yield depends on the number of crowns per plant



Double hill



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Strawberry Renovation

- **Purpose:**
  - Invigorate
  - Disease management
  - Weed management
- **Steps:**
  - Mow
  - Thin/roto-till
  - Fertilize


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Earliglow (USDA/UMD)

- **Early Season**
- **Strengths:**
  - Flavor – Balanced/Sweet!!!!
  - Firm
  - Yield – Medium
  - Disease resistant
- **Weaknesses:**
  - Size – Borderline
  - Frost – loose primaries
  - Flavor comparisons

Evangeline (Nova Scotia)

- **Early Mid Season**
- **Strengths:**
  - Flavor – Balanced/Sweet
  - Firm – Spongy
  - Nice shape
  - Cold Hardiness
- **Weaknesses:**
  - Yield – Medium
  - Size – OK

Noreaster (USDA/UMD)

- **Early Season**
- **Strengths:**
  - » Flavor – balanced/sweet
    - – "artificial grapes"
  - » Round consistent shape
- **Weaknesses:**
  - » Yield – medium
  - » Size - Medium
  - » Disease?

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Brunswick (Nova Scotia)

- **Early Mid Season**
- **Strengths:**
  - Yield - High
  - Size - VG
  - Firm – VF
  - Flavor – Balanced/Mild
  - Cold Hardiness
- **Weaknesses:**
  - Color – dark
  - Rough/Irregular
  - Some Leaf Scorch

Cavendish (Nova Scotia)

- **Early Mid Season**
- **Strengths:**
  - Yield – Very High
  - Size - VG
  - Firm – Spongy
  - Flavor – Balanced/Acid
  - Cold Hardiness
- **Weaknesses:**
  - Rough

Allstar (USDA/UMD)

- **Season – Mid**
- **Strengths:**
  - Yield - High
  - Size - VG
  - Firm – VF
  - Flavor – Balanced/Sweet
- **Weaknesses:**
  - Color - light

Honeoye (Cornell/NY)

- **Mid Season**
- **Strengths:**
  - Yield – Very High
  - Size - VG
  - Very Firm
  - Consistent shape
- **Weaknesses:**
  - Flavor – “variable”
  - Disese

Jewel (Cornell?)

- **Mid Season**
- **Strengths:**
  - Yield – High
  - Size - VG
  - Very Firm
  - Nice consistent shape
  - Flavor – balanced
- **Weaknesses:**
  - Disease?

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Darselect (France)

- **Mid Season**
- **Strengths:**
  - Yield – Very High
  - Size - VG
  - Very Firm
- **Weaknesses:**
  - Flavor – OK
  - Disease
  - Rough

Mira

- **Late Season**
- **Strengths:**
  - Attractive
  - Size - VG
  - Color
  - Flavor – OK
- **Weaknesses:**
  - Yield – Medium
  - Firm -Medium