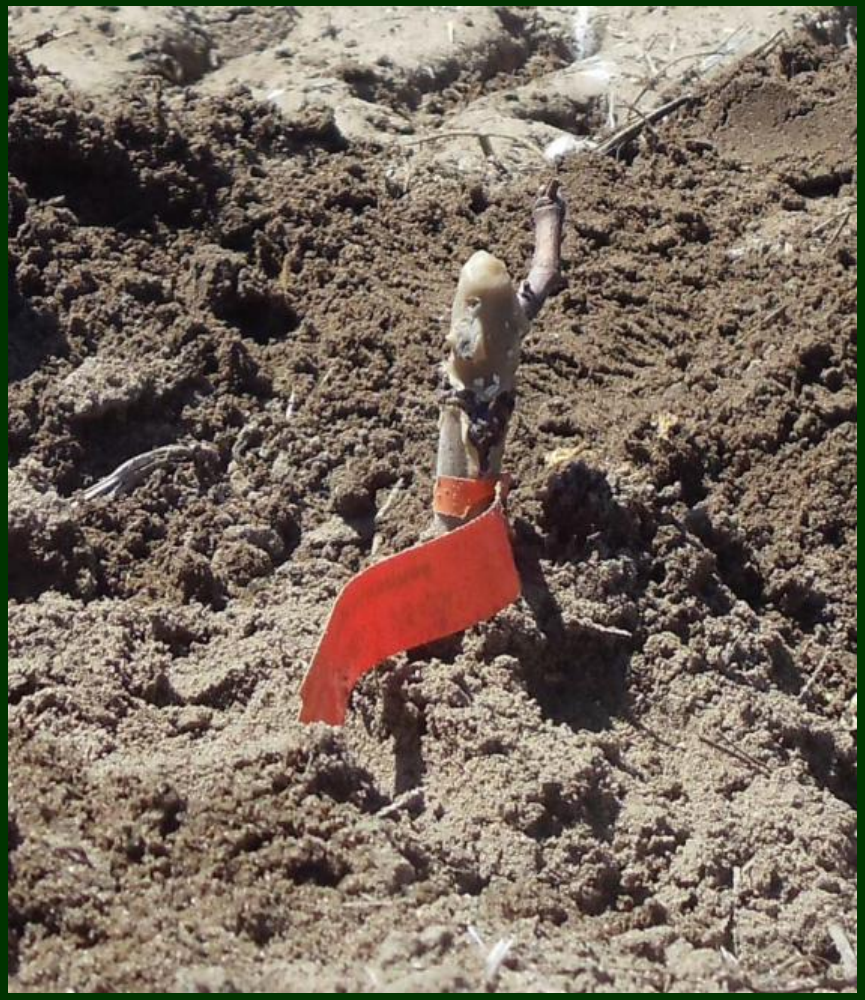
Improved planter guidance systems

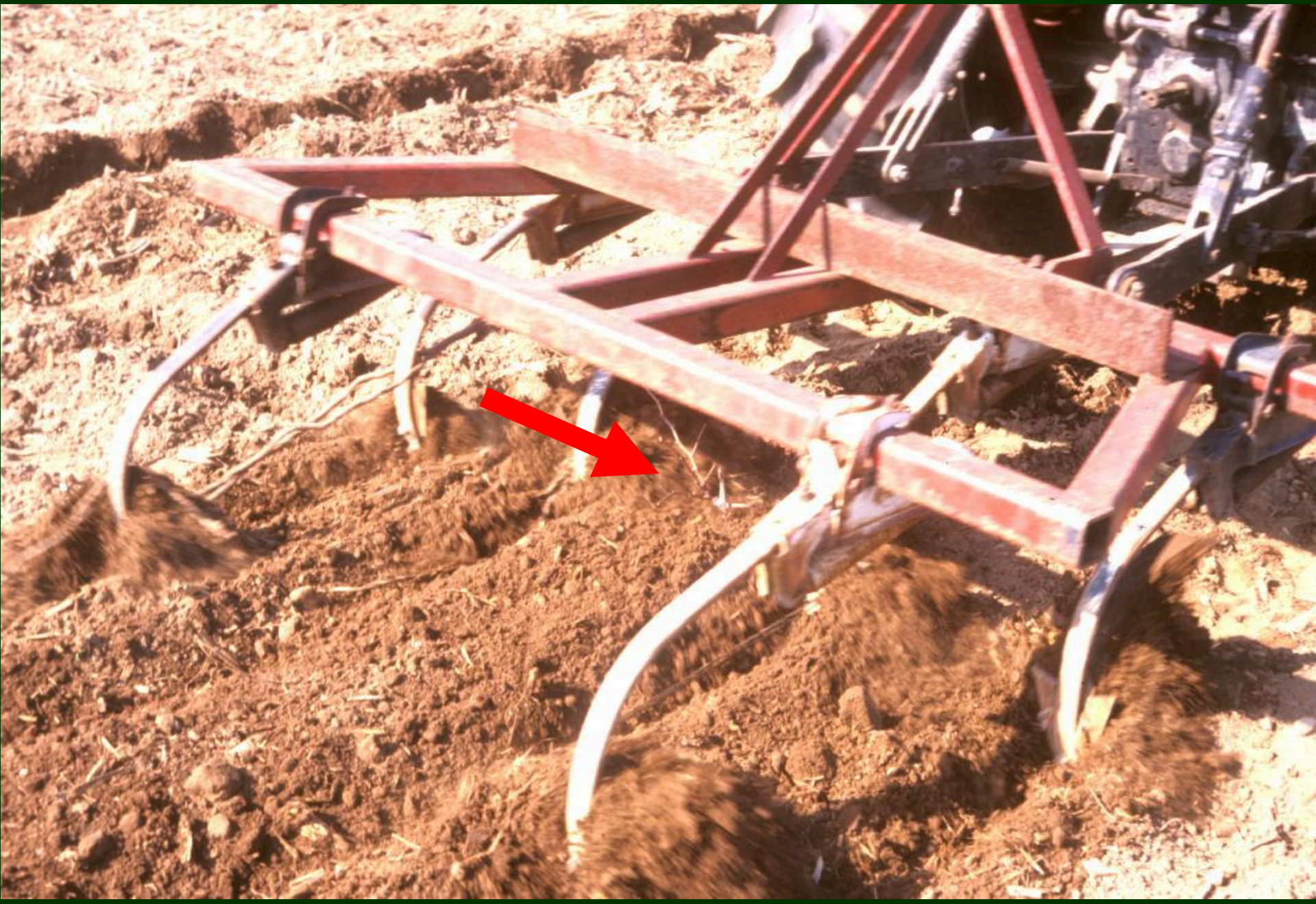
Improved planter guidance systems

April 30, 2014

April 30, 2014

Post-plant Hill Up





Poor site prep leads to difficult planting and hill-up

Fertilizing Newly Planted Vines

- Provide nitrogen and potassium
  - Other nutrients and amendments should have been applied before planting
- Apply nitrogen in a circle near plants
- Potassium can be band applied

NITROGEN application to new vines

<u>Apply 30# actual N per acre</u>

= ~ 2 oz of ammonium nitrate/vine

= ~ 1.5 oz of urea/vine

POTASSIUM application to new vines

As recommended by previous soil test.

Banded application in the vine rows.

Now, at last, you can sit back and watch them grow…

Well, you can,

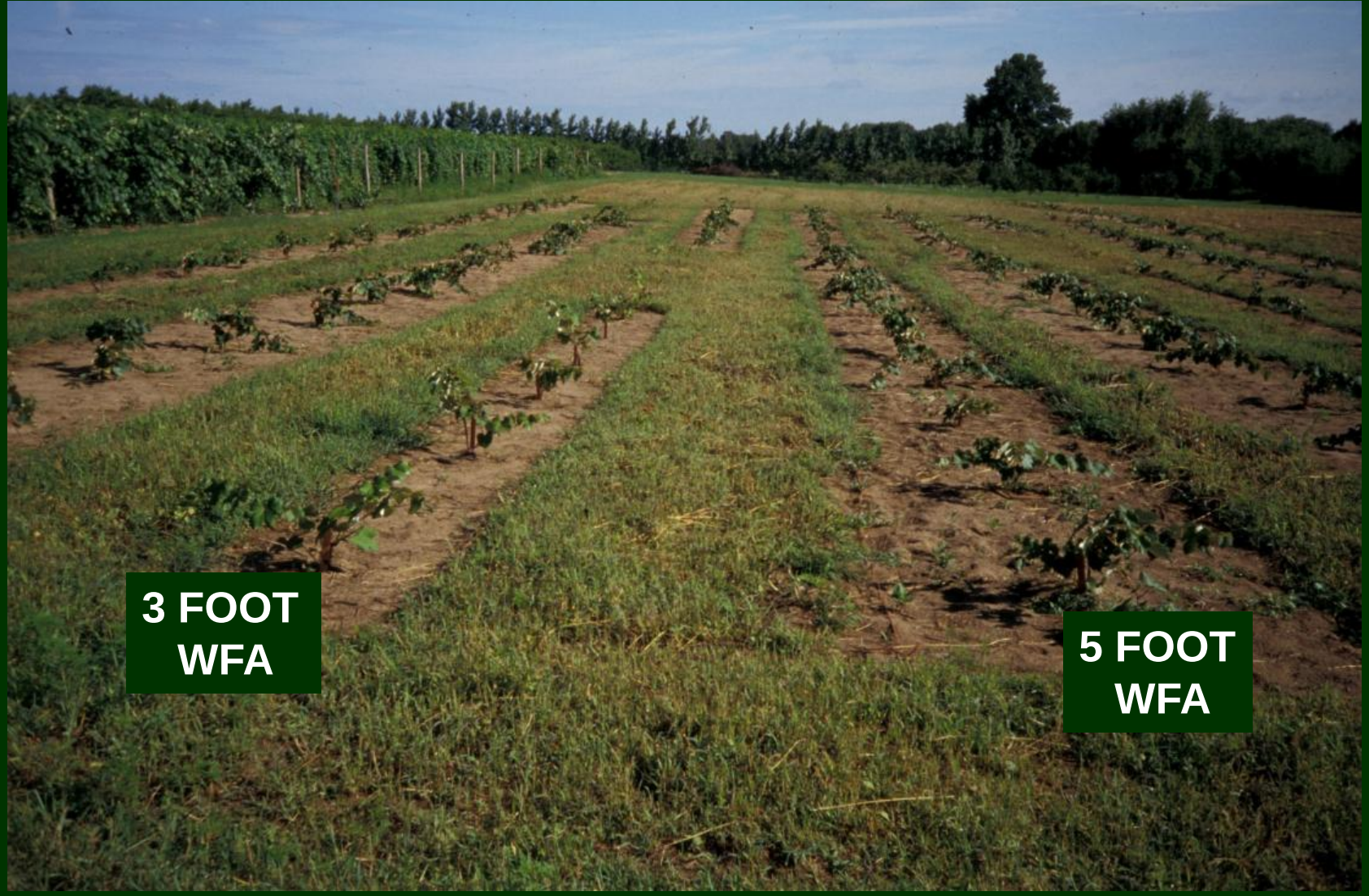
but this is what you'll get.

Early Care Topics

- Weed control
- Vine maintenance
- Row middle seeding

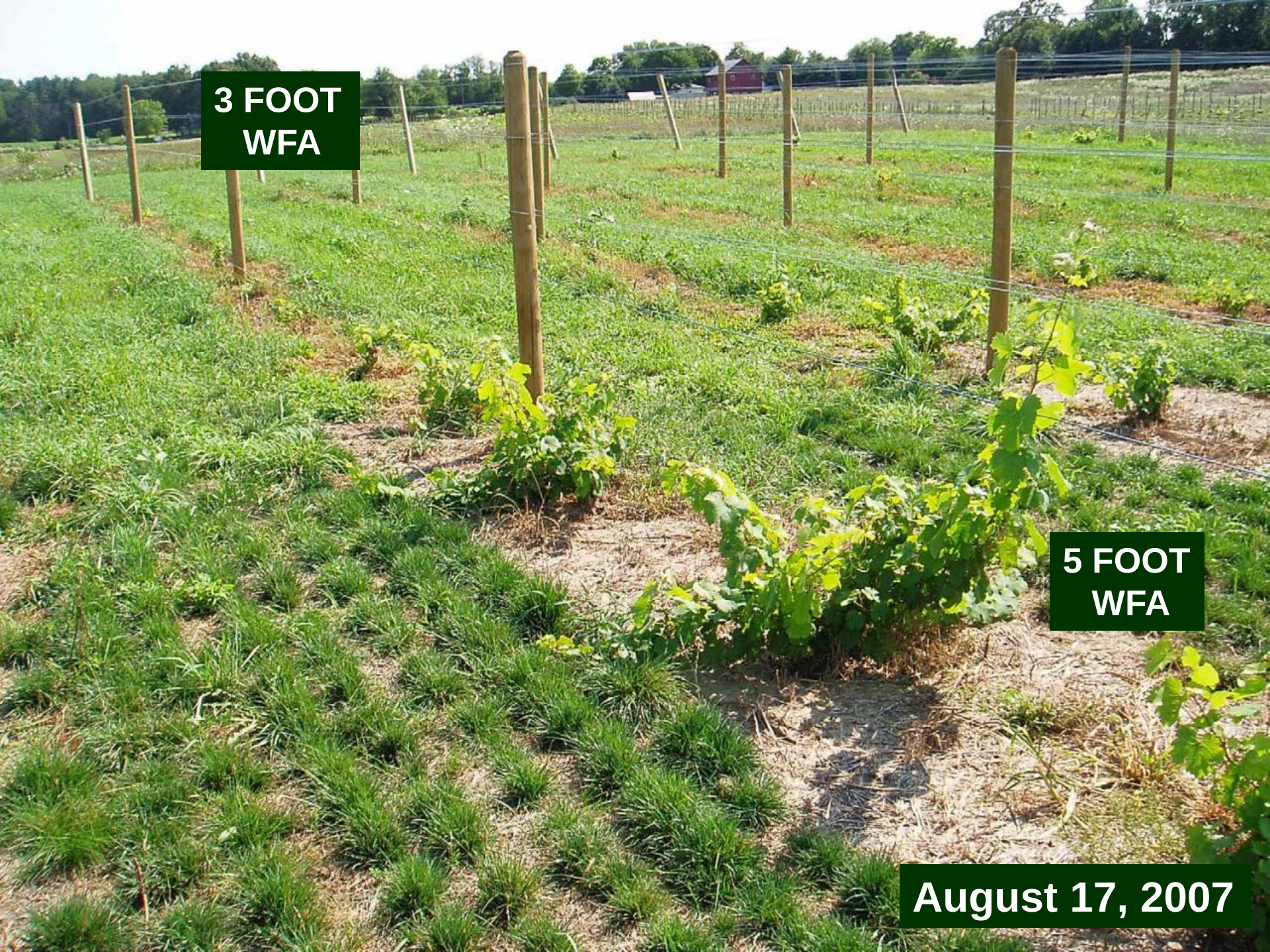
Weed Control in New Vineyards

- Critical to early vine growth
- Long lasting impacts on vine performance



COMPARISON OF THE INFLUENCE OF VARYING WIDTHS OF THE WEED-FREE AREA (WFA) ON THE GROWTH OF NEWLY-PLANTED NIAGARA VINES

SWMREC 7/31/96


3 FOOT WFA
5 FOOT WFA
August 17, 2007

THE START OF THE SECOND GROWING SEASON IN A NEW NIAGARA VINEYARD – 6/18/91

Management of Early Vine Growth

Year 1 – Maximize leaf area!!

- Do not remove shoots to “neaten” up the vine
- It’s OK to have shoots in all directions
- Shoots = leaves = root growth

Year 1 – Maximize leaf area!!

- This looks nice but more shoots and more leaf area would be better!

Year 1 – Maximize leaf area!!

- Protect vines from leaf loss due to
  - Defoliating insects
  - Foliar diseases

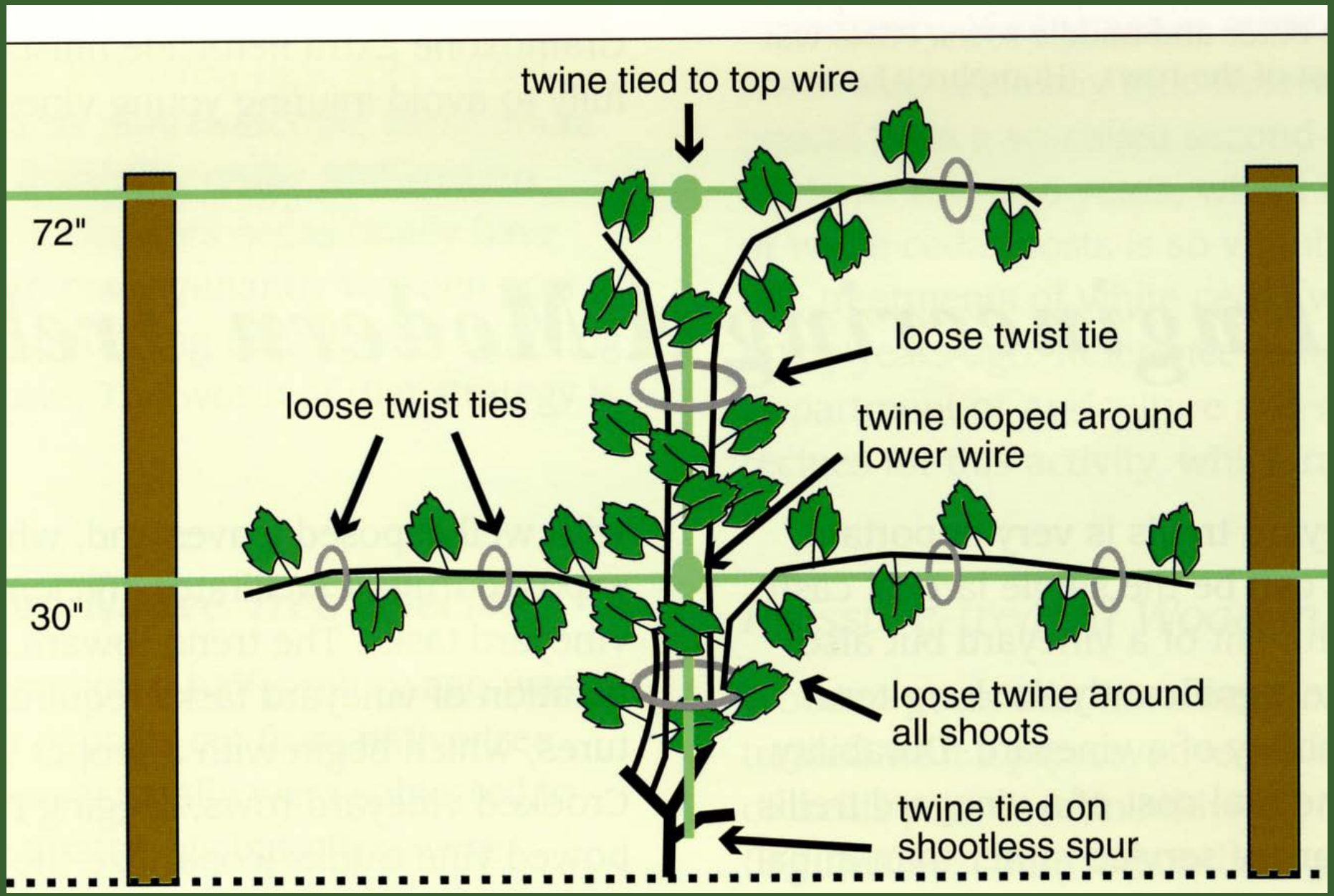
Year 2 – Maximize leaf area and begin developing vine structure

- Select upright shoots to establish trunks
- Provide support and guidance
- Continue to keep many shoots and protect foliage from insects and diseases
- Remove clusters

Support and guidance options

- Install posts and wires
- Twine supports
- Stakes for each plant

Year 2 – support of growth



What about “grow tubes”?

GROW TUBE EXPERIMENT ON RIESLING SWMREC 6/1/98

Yes, shoot growth can be rapid

GROW TUBE EXPERIMENT ON RIESLING SWMREC 6/1/98

Cost Estimate for Using Grow Tubes

(1) Cost of tubes ……. 800 x .30 = $240

(2) Labor to install tubes ….. 800 x .30 = $240

(3) Labor to remove tubes … 800 x .05 = $ 40

Cost per acre = $520

However, the benefit to vine establishment was minimal in MSU research plots

- **No significant difference in dry weight of shoots and roots at end of project**
- **Shoot growth too vigorous– less cold hardy**
- **Problems with foliar diseases inside tubes**

Row Middle Seeding


THANK YOU
FOR
YOUR ATTENTION