

Blueberry Field Day

July 12, 2010

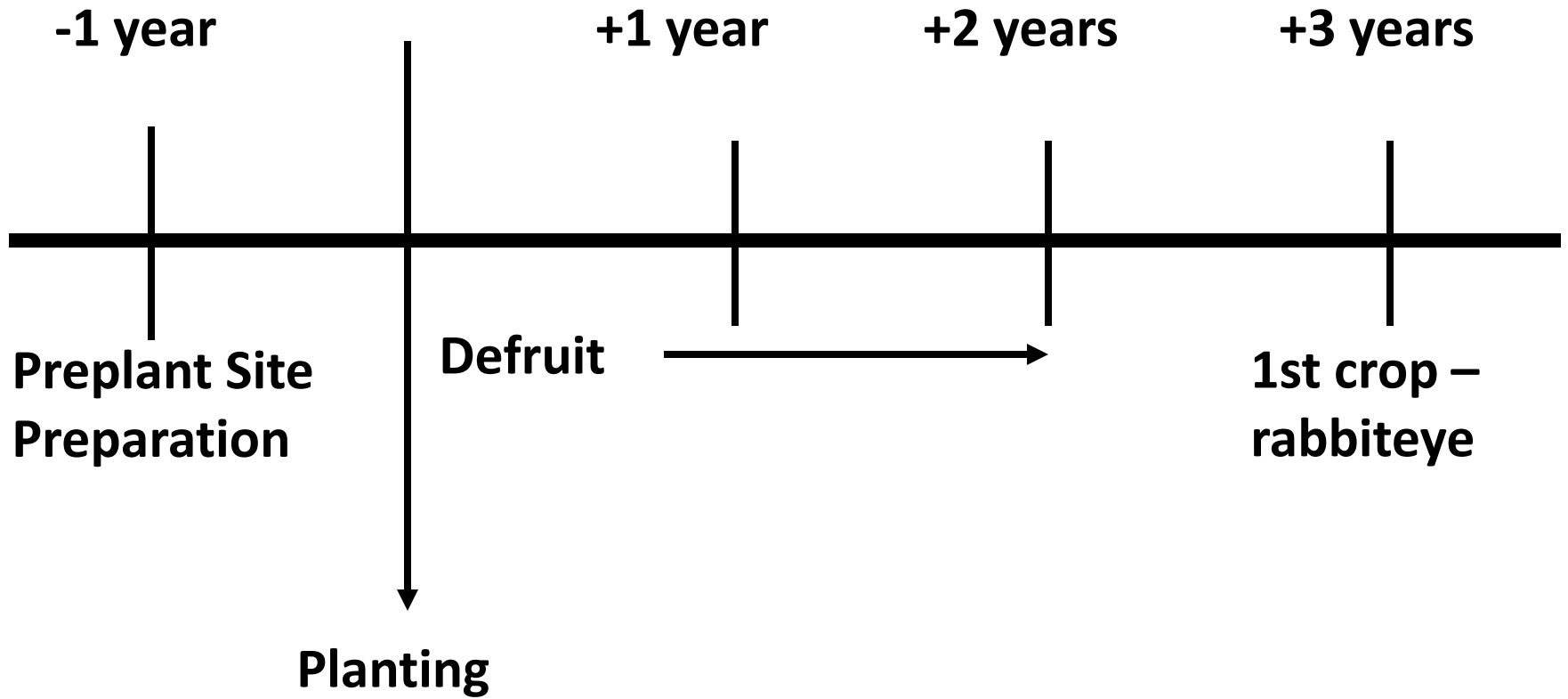
3 Major Types of Commercial Blueberries

- Lowbush – eastern provinces of Canada & northeastern U. S.
- Rabbiteye – southeastern U. S.
- Highbush – major cultivated species in North America
 - Northern highbush
 - Southern highbush

Blueberry Production

- Time to 1st crop ~ 3 years
- Time to full production ~ 8 years
- Yield @ full production ~ 12 gallons /plant
- Expected productive life ~ 25+ years
- Harvest period -
 - Highbush – early June to early July
 - Rabbiteye – early July to mid August
- Major production problem – soil pH maintenance
- Major pest - birds

Blueberry Production Timeline



Components of a Desirable Site

- Full sun
- Elevation (frost & disease protection)
- Soils:
 - pH 4.8 to 5.2
 - High organic matter content
 - Well-drained (internal & surface)
 - Min. of 30 – 36” rooting depth
 - Moderate fertility
- Available water supply

Preplant Site Preparation

- Begin at least 1 year before planting
 - Soil test (pH, P, K, Ca, Mg)
 - Amend & retest 6 mos. later
 - Control noxious weeds
 - Remove barriers to good air flow
 - If soil drainage is marginal:
 - Find a new site
 - Tile drainage
 - Raised beds (4 ft. wide X 9 – 12 inches high)

Planting Design

- If possible, run rows north to south
 - (slope of field may dictate otherwise)
- Plan for cross-pollination
 - Bloom times overlap
 - Essential for rabbiteye, desirable for highbush
 - Within row (about every 5th plant, stagger)
 - Separate rows (every 3rd row)

Plan for cross-pollination

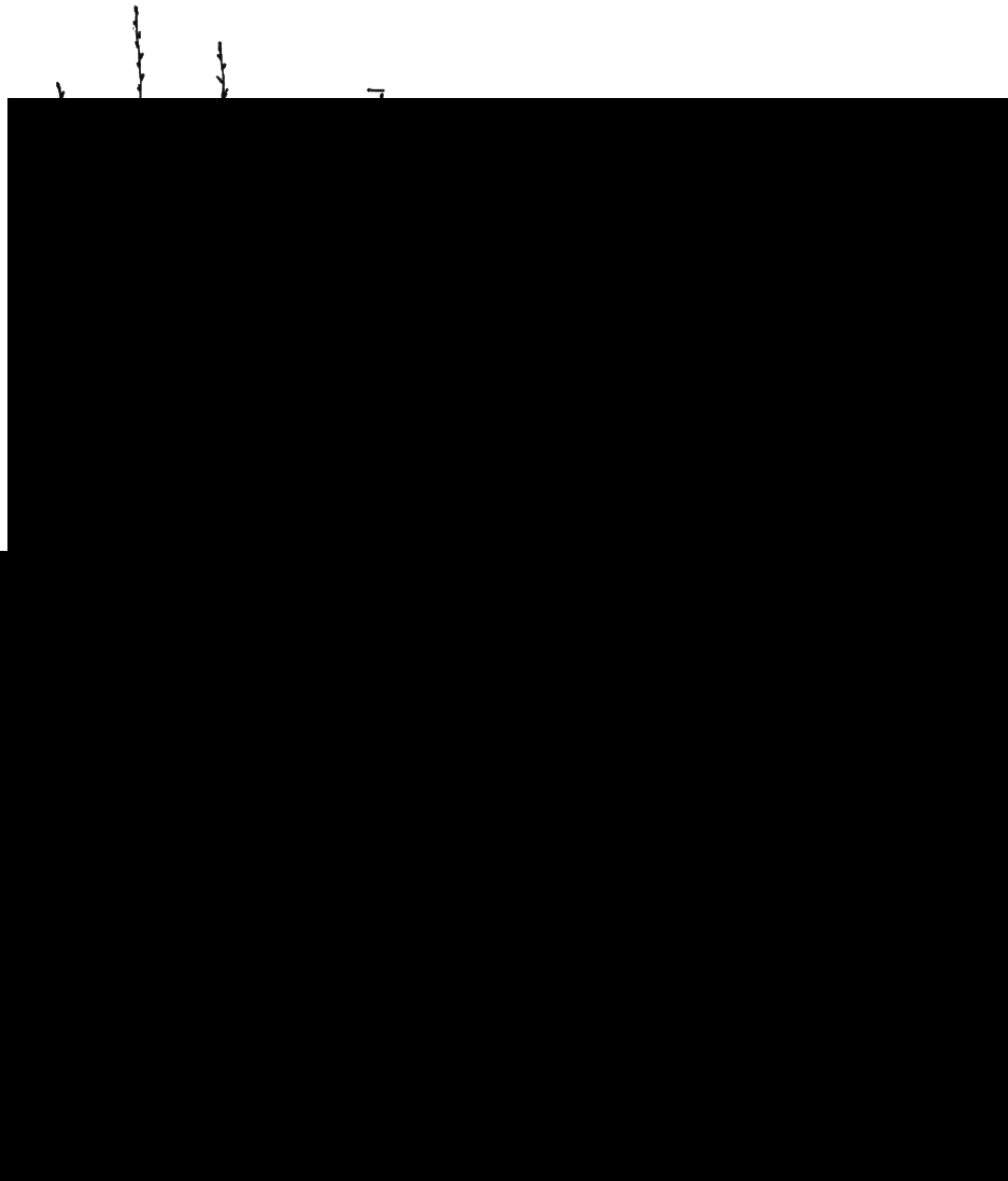
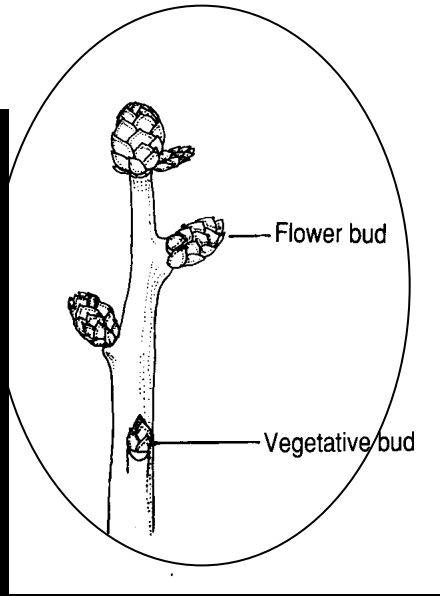
Bloom times overlap

- Essential for rabbiteye, desirable for highbush
- So not rely on highbush to cross pollinate rabbiteye

Within row (about every 6th plant, stagger)

Separate rows (every 3rd row)

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TTCTTTTTCTTTTTCTTTTTCTT
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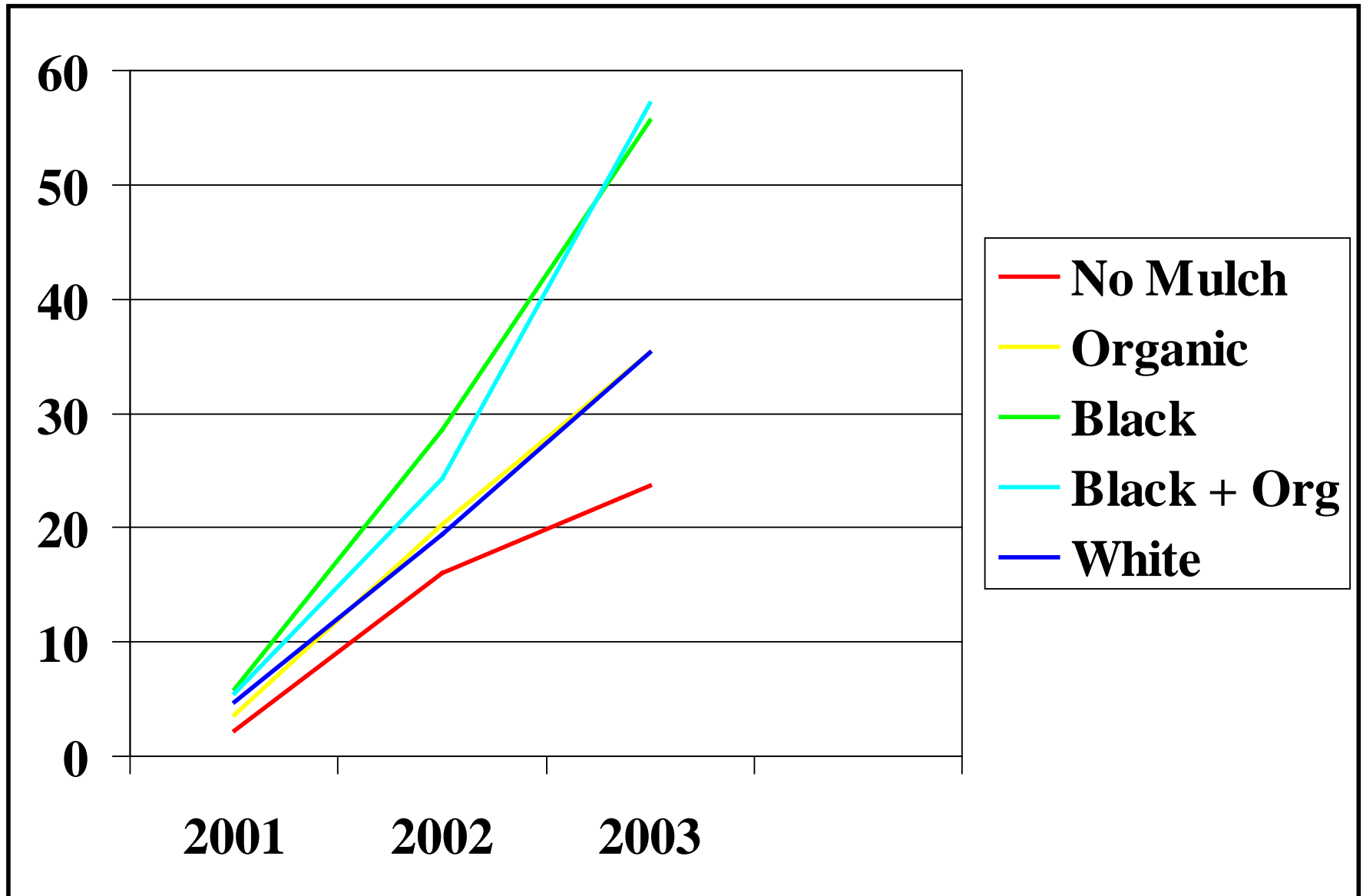
Floor Management

- Permanent sod between rows
 - Serves as a deceleration and diffusion strip for runoff water
 - Support for equipment
- Mulching down the row
 - Suppresses weeds
 - Moderates moisture & temperature

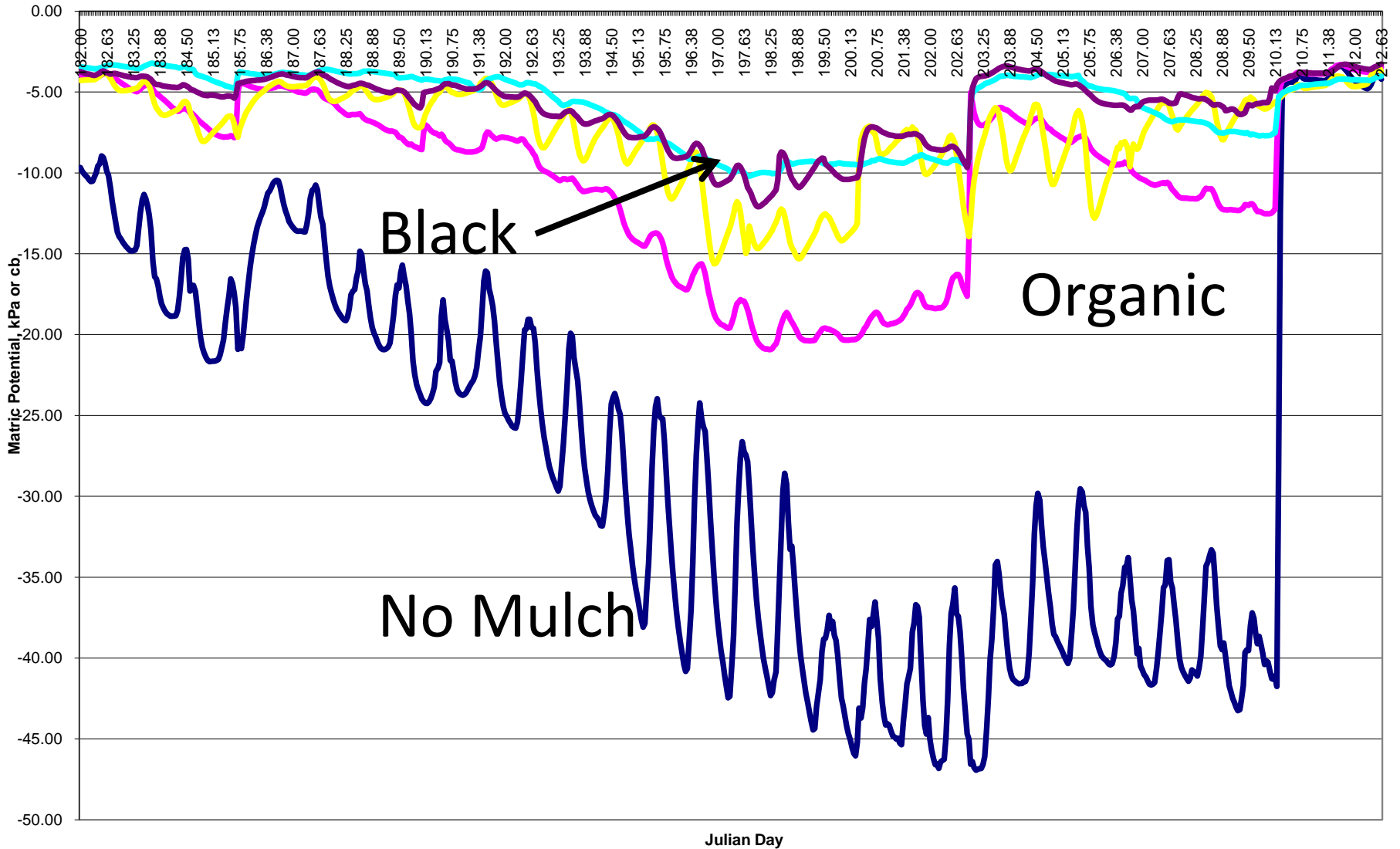
Mulches:

- Increased survival
- Increased growth
 - Especially with Black Fabric & Organic/Black
- Maintained more uniform moisture levels in the root zone
- Reduced temperature fluctuations in the root zone
- Increased yields

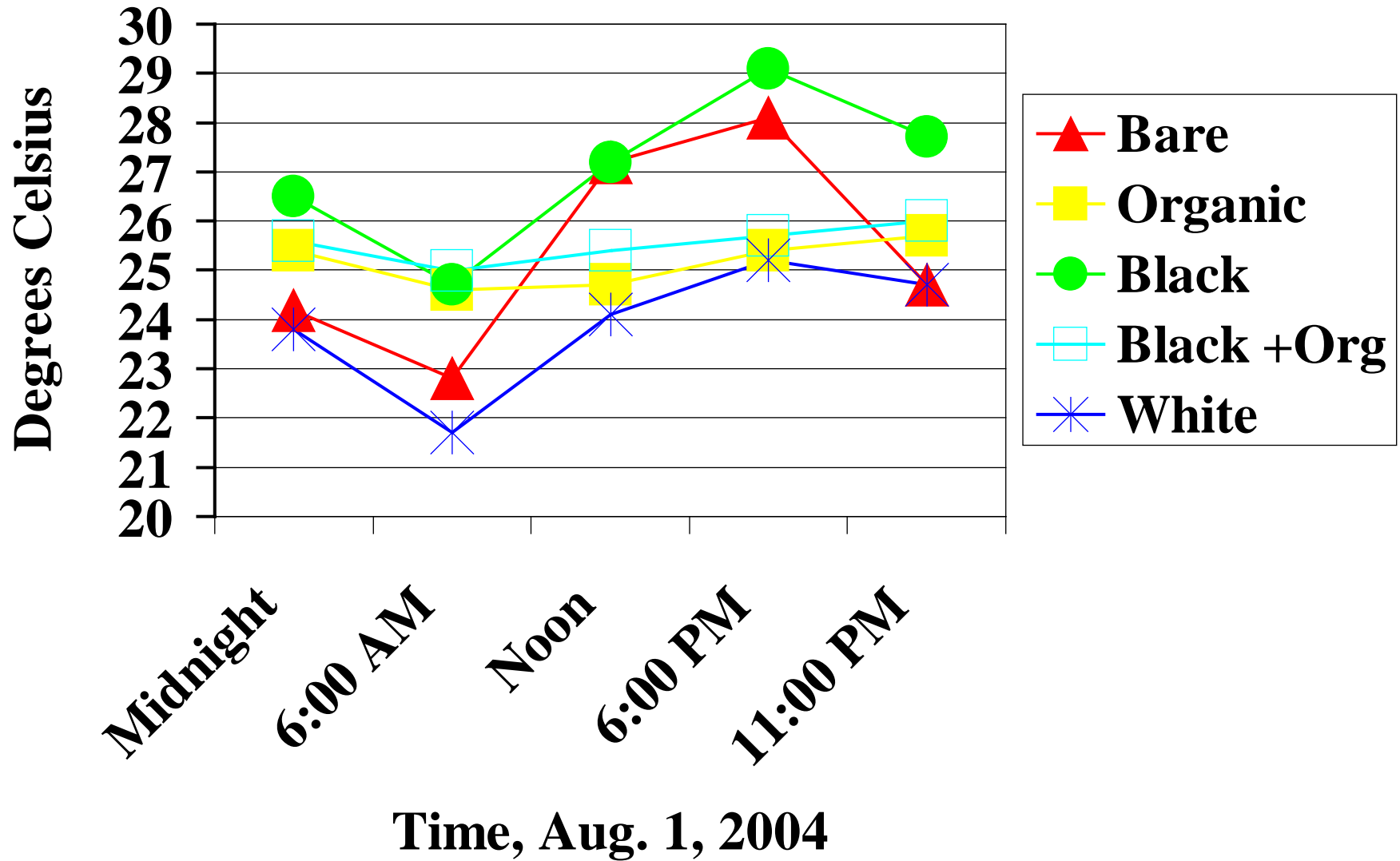
Canopy Vol. (ft³) by Tmt & Year



Avg Soil Moisture Jul 01



Effect of Mulches on Soil Temperature



Determining Nutritional Needs: Postplant

- Soil testing
- Tissue analysis
- Growth & fruiting
- Past experience

Blueberry Nitrogen Fertilization

- Multiple applications
 - Young plants: every 4 – 6 weeks (bud break to early Aug.)
 - Mature plants:
 - 2 to 3 applications of N (30 # N/A/ application*)
 - 1st at bud break
 - Last after harvest
- * For 12 ft. between row spacing

Pruning Nonbearing Blueberry Plants

- At planting:
 - Remove weak shoots
 - Cut shoots back to $\frac{1}{2}$ of original length
 - Remove fruit buds
- 1st Dormant Pruning:
 - Remove fruit buds
 - Remove weaker, shorter shoots at the base of plants

Why Prune?

- Remove dead, diseased wood
- Control plant size
- Remove older, less productive wood
- Encourage development of new wood for future crops
- Increase sunlight penetration throughout plant canopy
 - Fruit bud formation
 - Fruit color, sugar development

Pruning Mature Blueberry Plants

- Remove weak, shaded, lower shoots
- Prune plants to 4 – 5 ft. in height and width

Highbush varieties > 5 yrs. old:

remove 20% of canes/yr

Rabbiteye varieties > 6 yrs. old:

remove 10 – 15% of the canes/yr.

During growing season – top vigorous canes at 4-5 ft.

Why Control Wildlife in Fruit Crops?

- Economic losses
 - Fruit destroyed or consumed by wildlife
 - Increased disease & insect pressure with damaged fruit
 - Damage to plants and cropping system
 - Feeding on succulent shoots
 - Girdling or rubbing on plants
 - Puncturing plastic
- Food Safety

Wildlife Damage Prevention Categories

- Habitat modification
 - Remove roosting, nesting sites near planting
- Scare devices (visual & auditory)
- Repellents (taste & smell)
- Removal
- Shooting
- Exclusion (netting)

Wildlife Damage Prevention Categories

- Habitat modification
- Exclusion
 - Fencing
 - Netting
- Scare devices (visual & auditory)
- Repellents (taste & smell)
- Removal
 - trapping
 - shooting

Blueberry Fruit Losses to Birds

- Bluecrop – 100% crop loss with unnetted plants
 - 5 pints / bush yield X \$1.99/pint = \$9.95 loss / plant X 726 plants / acre = **\$7,223.70 lost / acre**
- Tifblue - 60% crop loss with unnetted bushes
 - 10 pints/plant yield total
 - Loss of 6 pints / plant to birds X \$1.99 / pint = \$11.94 lost / plant
 - 726 plants / acre X \$11.94 lost / plant = **\$8,668 lost to birds/acre**