WASHINGTON STATE UNIVERSITY
EXTENSION

World Class. Face to Face.

Retrospective on what I learned in the past 30 years?*

**** or at least, in my humble option, what I think I learned***

Insect Pests

- You don’t need harsh insecticides to get excellent control of most all insects pest
  - Intrepid and Altacor for fireworm
  - Movento for Tipworm
  - Avaunt for Weevil
- Excessive pre and postbloom use of diazinon, lorsban, orthene and/or carbaryl doesn’t really provide superior pest management and it comes at a significant cost to pollinators and beneficial insects.

Insect Pests

- Know when to treat is as important as having the proper chemicals to treat.
  - Insect pest life cycles and durations
  - No substitute for detailed monitoring of your pest
  - Chemical persistence
  - Pollinator life cycles and potential chemical impacts on pollinators

Weed Pests

- You don’t have to have perfectly manicured beds. Some weeds, especially those that are not overly aggressive, cause less damage than the herbicide used to control them.

- Some weeds, however, will be your demise. Zero tolerance at any cost is a good policy for them.
  - Don’t let them get started and don’t let them go to seed.

Weed Pests

- There are numerous cranberry herbicide (Curio, Quinstar, Callisto, Pruvin). With a few exception most weeds can be managed with these products.
  - Look at the labels, ask around and experiment to figure out what might work best.
  - Timing is critical for herbicide efficacy: cranberry development, weed stage (pre-emergent, early post-emergent, onset of dormancy), etc.

Weed Pests

- If you don’t need to apply Casoron annually – don’t.
  - Great herbicide, but long term use results in slow but steady decline of yield.

Disease Pests

- Unless fruit rot is a concern (fresh fruit, beds with historic high levels of field rot, wet bloom season) you don't always need to apply prophylactic fungicides during bloom. It doesn't hurt, but it can be expensive.
- Unless twig blight is problematic on your bed or on adjacent beds, prophylactic fungicides after fruit set may also not be required every year.

Disease Pests

- Timing is critical for fungicide application. Treat prior to infestation/sporulation. This depends on the disease.
- Know what fungicide is effective for which pathogen.
- Resistance management
  - Know and rotate fungicide mode of actions (FRAC)

Cranberry nutrition and fertilizer

- Lots of good information available – read and use it.
- Leaf and soil analysis can be useful if you know what to look for.
- 2:1:2 NPK annual ratios with multiple application of N and K corresponding to greatest use periods.
- Adjust fertility need to crop load / variety.
- Sandy soils require lots of small N application.
- Don’t grow hay.
- Know what the color of your vines means.
- Take fertilizer salesmen with a grain of salt.

Cranberry water management

- Drainage!
- Know your irrigation system (test for uniformity and application rate). Make it as uniform as possible.
- Use soil moisture sensors, and know the relationship between your soil texture and irrigation frequency.
- Frost protection – sensor placement, redundancy, and on-site monitoring.
- Avoid overly wet soils.

Cranberry sanding and pruning

- Moderation in pruning, too vigorous likely to impact yield
- Systematic sanding has value, but hard to document. Best $ return is where vines are weak and yield is declining, poor rooting, low spots, etc.

Cranberry pollination

- System is complex: weather, population of native pollinators, health of honey bees and number of colonies, timing & location of hive placement, competing plant forage (nectar and pollen), long term impacts fungicides, short and longer term impacts of insecticides, bloom time and duration
- You need to try to understand what is happening on your farm over time.
  - Take frequent notes of what's happening on your beds (density by species) during bloom during peak pollination times (early, middle and late bloom, ideal weather) .
  - Monitor your honeybee hive activity.
  - Compare with your neighbor's farms

Cranberry pollination

- Manage/protect native pollinator populations.
  - Key perennial floral resources
    - Early blooming species (February to April) for newly emerged queens
    - Late blooming species (July to October) for newly mated queens
    - Much of what NRCS/USDA and other supply for bee plants are crap.

Cranberry pollination

- Most damaging cardinal sin to native pollinators
  - Harsh insecticide application post-fruit set when weeds blooming on beds.
    - Diazinon, Movento and Admire usage post-fruit set while Lotus in full bloom, and being foraged upon newly mated bumblebee queens.

Cranberry varieties

- Can’t make a silk purse from a sow’s ear.
- Don’t trust pruned vines – ever.
- Lots of good options.
- It is the only way to make a step increase in yield.

First principles of cranberry farming

- Focus on step increases in yield first
  - Frost protection
  - Varieties
- Avoid cardinal sins of pest management
  - Messing up 1st generation of BHFW control.
  - Letting hasty weeds go to seed or get started.
  - Killing native pollinators
- Nitrogen most limiting nutrient- small frequent applications best
- Drainage keys & don't over- or under-irrigate

Happy Dance

Questions ?