



Opportunities and Constraints for Northeast Tree Fruit Growers

Dr. Andy Vega D.P.M.

Certified Crop Consultant and Research Manager

New England Fruit Consultants

From a consultant's perspective...



My experience

- 2012 - Graduated from Plant Medicine Program, University of Florida
- 2011 - 2012 - Interned with New England Fruit Consultants and M & H Apple Farms Consulting business in Hudson Valley
- 2012 – 2024 Consult on about 2000 acres of apples in NE and ENY. Manage research trials.
- 2019 - 2024 - Chair the Northeast Crop Consultants Conference



Consulting vs Extension

- Land grants had historically supported the industry by funding research and extension
- Extension is currently limited to fulfill growers needs
- Consultants have “privatized” extension which allows us to focus on you
- Crop consultants should be independent and compliant with grower standards
- Consultants think about **time** and **money**...so should all of you



New England Fruit Consultants...

This is not a commercial

- We provide pest monitoring services and help growers with their spray programs
- 2012 Spray bill was about \$800 - \$1000/acre
- 2024 spray bill is about \$1400 - \$1800/acre



Opportunities

A lot happens in the orchard

A quiet spring can turn into early morning wake ups, sleepless nights and lots of people management

- Organize your objectives
- Prioritize the important decisions
- Know when to let go and when to jump on



Preseason Decisions

- I'm actively making pest management decisions in orchards from March 15th – August 15th
- Take your “time off” seriously
- Time on should be serious too
 - Workshops, meetings, socializing events are important
- Grants to be written?
- Recap the previous season for both positives and negatives
 - We do preseason meetings with our clients every year

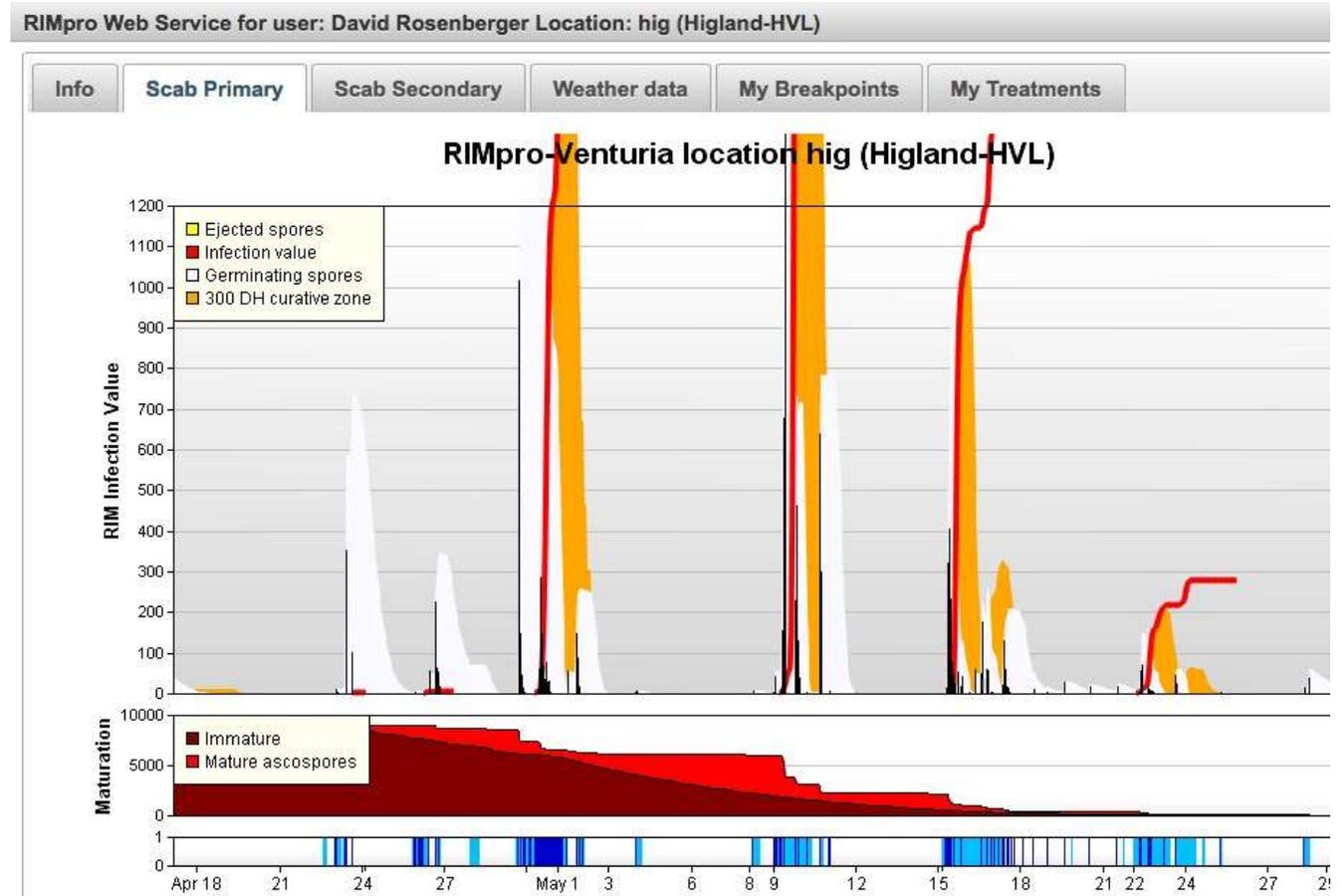
Tree phenology

- I work with growers that are about 100 miles from me
- Orchard tree stages are subject to a range of climactic factors
- Consider reference dates with known sites – especially earlier ones
- And keep track of your historical dates – they keep coming up
- Think green tip, bloom, petal fall, etc.



Modeling using pest and disease forecasts

- Scab
- Fire blight
- Weather data
- Fruit moth
- Carbohydrate and pollen tube model
- Curculio
- Codling moth
- Oblique-banded leafroller
- Flyspeck and sooty blotch



NEWA, RimPro, Ag radar

Daily Summary

Download CSV

Estimated Data

Missing data

Date (Local Time)	Avg Air Temp (°F)	Max Air Temp (°F)	Min Air Temp (°F)	Total Precip (Inches)	Leaf Wetness (Hours)	RH Hrs (≥ 90)	Solar Rad (langleys)	Avg Wind Spd (mph)	Avg Soil Temp (°F)	Avg Soil Tension (kPa)
03/14/2024	51.3	66.8	35.9	0	4	4	373	0	4	N/A
03/15/2024	52.9	65.2	40.5	0.01	2	15	233	0	32.7	32.6
03/16/2024	44.3	54.4	34.3	0	6	14	234	0	27	34.8
03/17/2024	49.1	57.7	40.5	0.01	7	13	214	0	14.7	33.1
03/18/2024	42.5	49	35.9	0	5	7	355	5.3	20.5	36.1
Sum or Avg:	37.5	45.4	29.6	14.96	908	3005	18724	0.0	31.8	NaN
Max:	56.5	66.8	48	2.31	24	25	374	5.3	51.5	NaN
Min:	17.3	20.8	11.8	0	0	0	9	0	0	NaN

Pest Monitoring

- Integrated Pest Management has had a hard time becoming established
- The public doesn't get it
- But you should
- Record keeping is critical



Pest Biology

- The success or failure of most pest management decisions is often based on timing
- What stage are you targeting and how long will they be there
- Spray before the rain for Disease concerns
- Spray after the rain for Insect concerns
- Record keeping is critical



Pesticide Decisions

- Everything you put in the tank can affect the orchard
- Think about tank compatibility (WALES)
- Proper surfactants
- Effective materials

- What is the most expensive chemical you will put in your tank this year
 - The one that doesn't work



Consultants are like CSI agents

- Its easy to make mistakes
- Be aware of common mistakes that are made routinely
- Find someone who can get a bird's eye view of things
- Scouting is different than monitoring
- Consider what's happening below the tree



Nutritional requirements for trees

Uptake of nutrients is determined by many factors;
Take regular soil and leaf tests for understanding needs

- Genetics
- CEC capacity of soil
- pH of Soil
- Water status
- Competition with other plants

C HOPKNS CaFe Mg B Mn CuZn MoCl

Think about symptoms;
deficiency v toxicity

Macro vs Micro nutrients

Mobile v immobile
old vs new leaves

Look down and then look around



Photo: William Brown Jr. Bugwood.org

Constraints

- Less help from Universities
- Wholesale pricing has gone down
- Cider pricing may be leveling off
- Inflation tends to skip agriculture
- Consumer demands are high
- Consumer knowledgebase is low
- Real estate replacing farmland is an irreversible reaction



What are your challenges here in Maine

- You guys are following the rest of New England
- Volume prices have been established
- The late maturity and early ending season compresses your available weekends
- Columbus day weekend can be make or break
- Take advantage of PGRs & fruit quality



Questions

