

Putting It All Together

How to Optimize Your Time Management

Advisable to have some kind of flow chart prepared ahead of time for the different tasks throughout the season

- when to deploy traps for different species?
- what are the optimal times for taking samples?
- when do treatment decisions need to be made?
- when do mating disruption efforts need to be in place?
- when to be on the lookout for the breakout (secondary) pest species:
 - San Jose scale ([NEWA Apple Pest Model](#))
 - green aphids, woolly apple aphids, leafhoppers, Japanese beetle, BMSB, etc. ([TF Guidelines – “Additional Summer Sprays”](#))

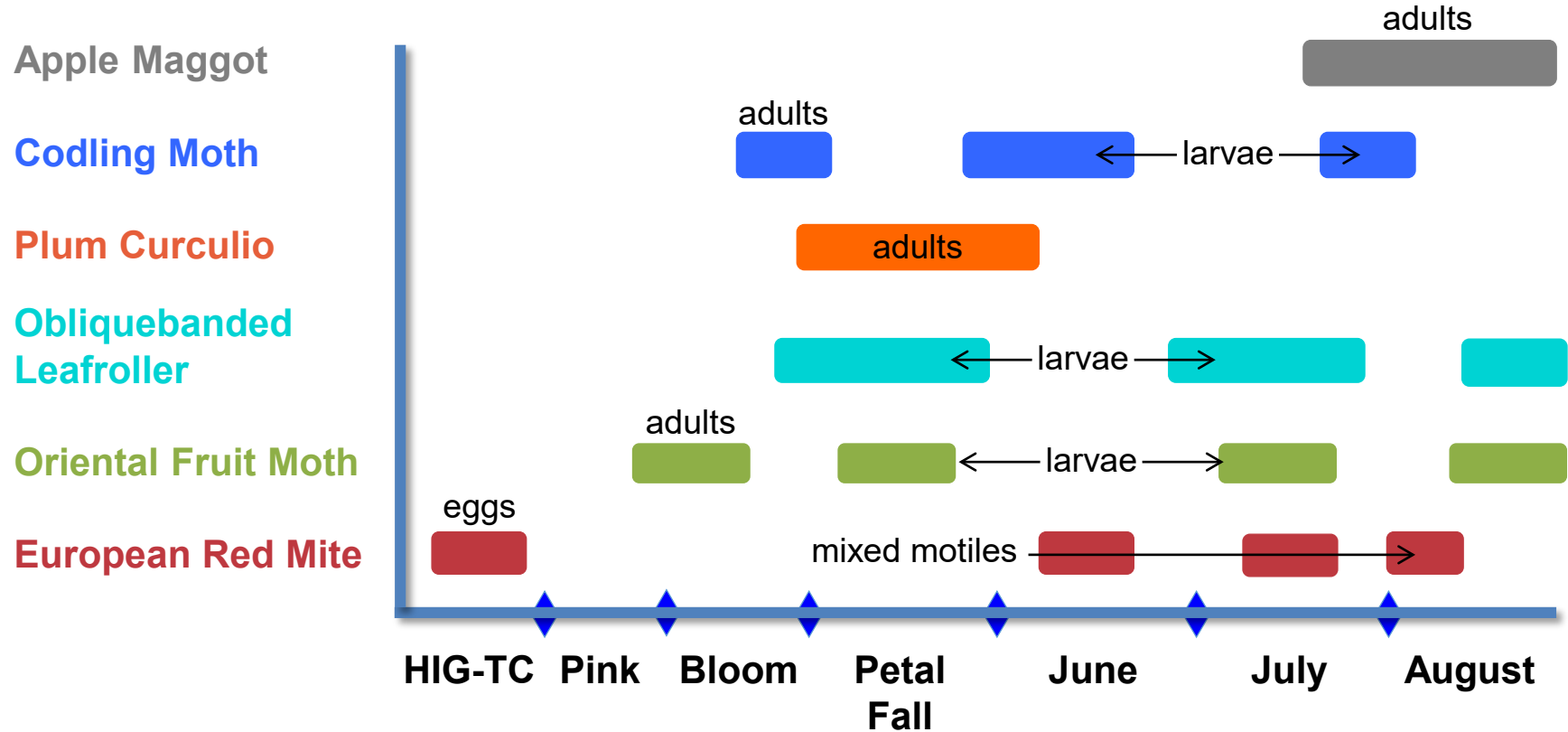
Necessary to be familiar with the relative timing of pest activity

How does insect control articulate with disease control needs?



Arthropod Management Programs

Key Arthropod Pests and Potential Control/Decision Periods



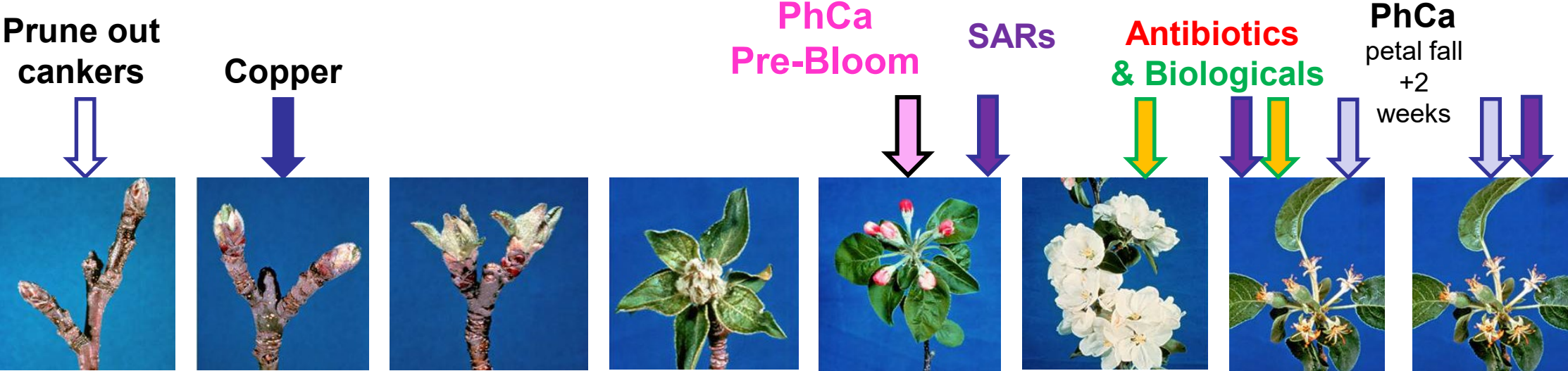
Typical windows for management:

- **European Red Mite:** delayed dormant (eggs); mixed motile stages (summer months)
- **Oriental Fruit Moth:** late pink to bloom (adult monitoring); petal fall, July & August (larvae); 3rd brood not always a problem
- **Obliquebanded Leafroller:** late bloom to petal fall (OW larvae); late June thru July (1st summer larvae); 2nd summer larvae not always a problem
- **Plum Curculio:** late bloom through 4-6 weeks past petal fall (adults)
- **Codling Moth:** late bloom to petal fall (adult monitoring); June and late July to mid-August (larvae)
- **Apple Maggot:** mid-July through August (adult monitoring)

Trap Deployment/Sampling Timings

Pest	Trap set out date / Sample timing	Lure change	Trap take down date	Trap type
Oriental Fruit Moth	15 April (HVal: 1 April)	1 July	15 September	Large plastic delta
Codling Moth	1 May	1 July	15 September	Large plastic delta
Obliquebanded Leafroller	1 June	N/A	15 September	Large plastic delta OR Pherocon IIB
European Red Mite	June 1-30; July 1-30; Aug 1-15	—	—	—
San Jose Scale	25 May	N/A	1 September	Tent
Apple Maggot	20 June	N/A	1 September	Volatile-baited sphere

Fire blight Management Overview



Apple Growth



Apple Scab & powdery mildew, & other fungal diseases

