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Pesticide Safety 2012 - MRL's and Frost

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MRLs – what are they and why
do they matter

MRL vs Tolerance

- When pesticides registered by US EPA – tolerance is established
 - Amount of residue that is ok on harvested crop
 - If you obey the label, you should not have a problem meeting this
 - Research to determine the labeling to meet tolerance done through IR-4
- MRL – “maximum residue level” is the same as tolerance but in foreign countries

Harmonization (or not)

- Problems may come when the MRL for a potential foreign market is less than the US EPA tolerance
- Not always a problem if the use pattern gives residues that meet the MRL
- BUT in some cases the MRL is so much lower (or virtually zero) that you can't meet it with the current use pattern

	US	MRLs						
Trade Name	Tolerance	Codex	EU	Australia	Canada	Japan	New Zealand	Taiwan
Abound	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1
Sevin	3	5	0.05	3	10	7	5	0.5
Bravo	5	5	2	10	2	5	10	0.7
Lorsban	1	1	0.05	1	0.1	1	1	1
Diazinon	0.5	0.2	0.2	0.5	0.25	0.1	0.5	0.5
Admire	0.05	0.05	0.05			0.04	0.05	1
Avaunt	0.9	1	1	1		0.9	1	1
Quinstar	1.1	Petition	0.05	Petition		Petition		Petition
Oberon	2		0.02	Petition	Petition	Petition		Petition

What's being done

- CMC subcommittee
 - Identifies important compounds from a list of those that are not harmonized
- CMC contractor
 - works on the political negotiations to achieve harmonization

Impact on growers

- Handler bans certain uses
 - Example – Quinstar no use for EU fruit
 - EU MRL is 0.05 ppm (under consideration); US is 15 ppm for the Section 18, Section 3 proposed at 1.1

Date restrictions

- No use after a certain date
- Based on reducing residue to meet MRLs that are lower than US
 - Example – Lorsban US tolerance is 1 ppm; EU is 0.05 ppm

New compounds

- Generally cannot begin MRL petition work until EPA approves US label
- Problem for new registrations in international trade
- Trying to work in tandem for most promising ones

Important older compounds

- Bravo
 - US tolerance is 5 ppm
 - EU and Canada MRL – 2 ppm
 - Solution?
 - Use pattern
 - 2012 IR-4 project; also for CODEX re-registration

Important older compounds

- Sevin
 - US tolerance is 3 ppm
 - EU MRL – 0.05 ppm
 - Solution?
 - 2012 IR-4 project to get new EU MRL

OS Restrictions 2012 (draft)

- All MA = Export Processed = Incentive
- BUT Many Restrictions
 - No Quinclorac or Princep
 - No Maneb
 - No Belay
 - No Oberon, Rimon or Evito
 - No Orthene or Lorsban after 6/22
 - No Altacor after 7/15
 - No Sevin or Bravo after 8/1
 - Longer PHI for Assail (60 d) and Imidan (40 d)

Cranberry Industry Fresh Fruit Pesticide Analysis.

Percent of Samples with Detects				
	MA	WA	WI	Overall
Diazinon	0%	33%	0%	7%
Lorsban	37%	38%	9%	25%
Orthene	0%	17%	6%	6%
Bravo	82%	71%	47%	64%
Carbaryl	61%	0%	11%	26%
EBDC	26%	46%	15%	26%

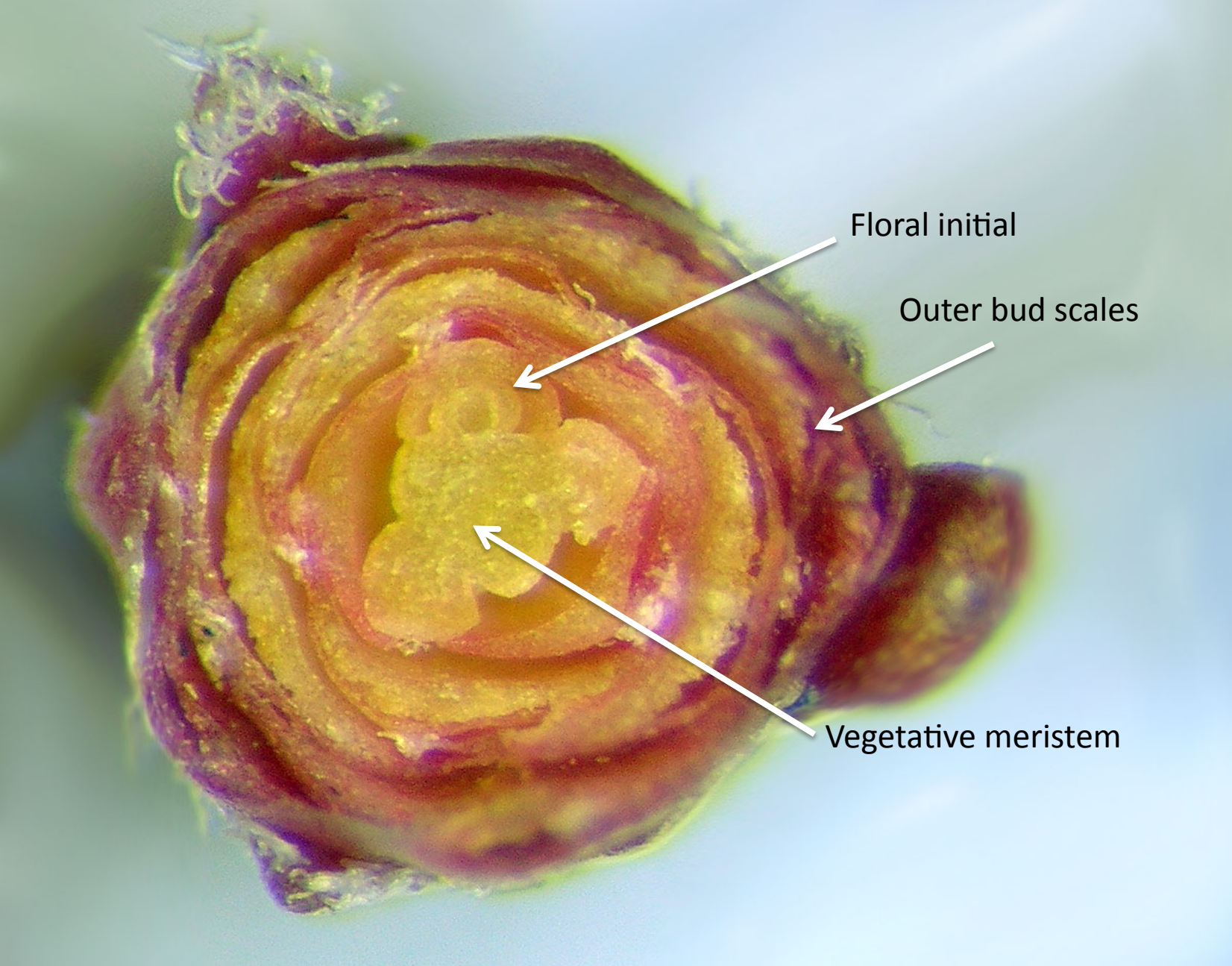
2006 USDA-AMS-Pesticide Data survey for insecticide residue in fresh cranberries (316 samples)

Insecticide [overall % OSC contracts using insecticide 2005]	Trade name	% samples w/ detections
tebufenozide [10.4]	Confirm	6.3
acephate [25.2] methamidophos (acephate metabolite)	Orthene	25.0 15.5
chlorpyrifos [48.0]	Lorsban	22.5
methoxyfenozide [27.5]	Intrepid	13.9
spinosad [14.1]	SpinTor	2.5 (> tolerance)
carbaryl [39.3] 1-naphthol (carbaryl metabolite)	Sevin	3.8 47.6
thiamethoxam [16.0]	Actara	1.2
diazinon [79.0]	Diazinon	0.0

Frost

- Tolerances at State bog as of 4/6
 - EB bud swell, 22°F
 - H bud swell, 22°F
 - BL bud swell, 25°F (a few 27°F)
 - ST bud swell, 25°F

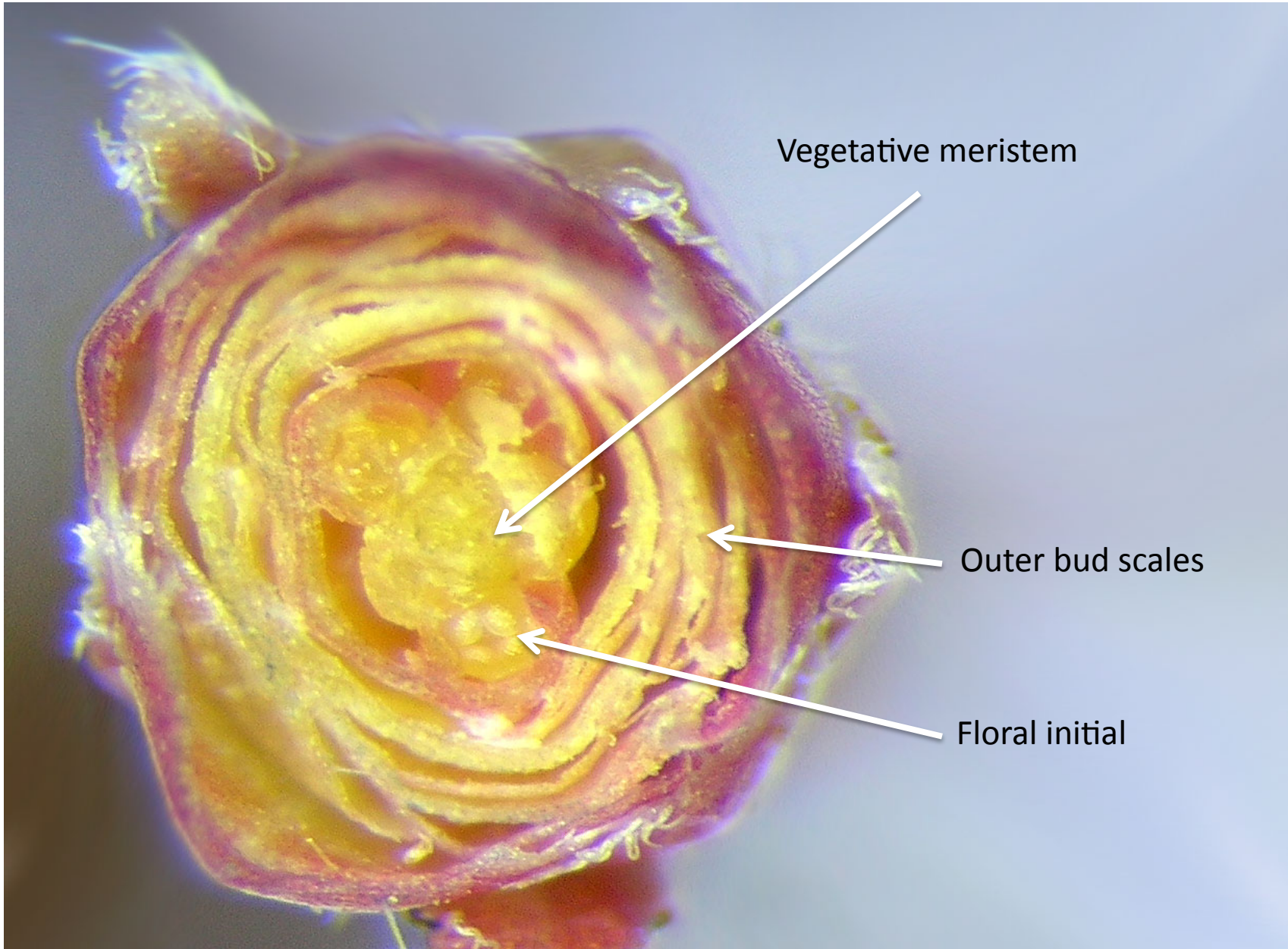




Floral initial

Outer bud scales

Vegetative meristem



Vegetative meristem

Outer bud scales

Floral initial

Protecting on really cold nights

- Windy
 - Frost flood?
 - Just up into the vines, can hold over if pre-bud break
- Sprinkling and making ice
 - Don't want all ice/no water
 - If ice evaporates lose ~7X heat compared what released to when it froze

When to turn off in the AM?

- 3-5 degrees above tolerance
- Do not have to melt all ice
 - If sun on ice and 3-5 degrees above tolerance, shut down
 - Ice will be wet so only normal heat loss on melting
 - That's why the 3-5 degrees



Questions?

