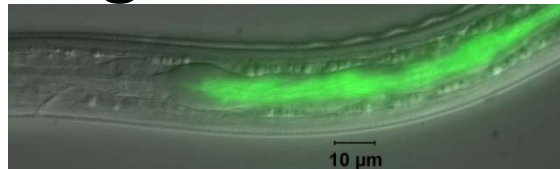


WA Field Day 2009 – Kevin Talbot

- 2009 Grayland water sampling results
- Grayland mitigation plans and Q scores
- WA/OR IPM data for 2009
- Newer chemistries/ OP alternatives for pest management including nematodes



July 13, 2009 Grayland results

	North –Schmidt Rd	South –(ocean)
Orthene®	<0.5 ppb*	<0.5 ppb*
Lorsban®	<0.5 ppb*	<0.5 ppb*
Diazinon®	1.5 ppb	<0.5 ppb*

O/P screen – Nominal Detection Limit = 0.5 ppb

* NO DETECT

Paul Anderson – 2009 DOE Sampling Plan for The Grayland Ditch

Three sites from the GHDD (flows north)

County Line Rd

Grange Rd

Schmidt Rd * (matched sample)

Three sites from the PCDD (flows south)

Alexison Rd

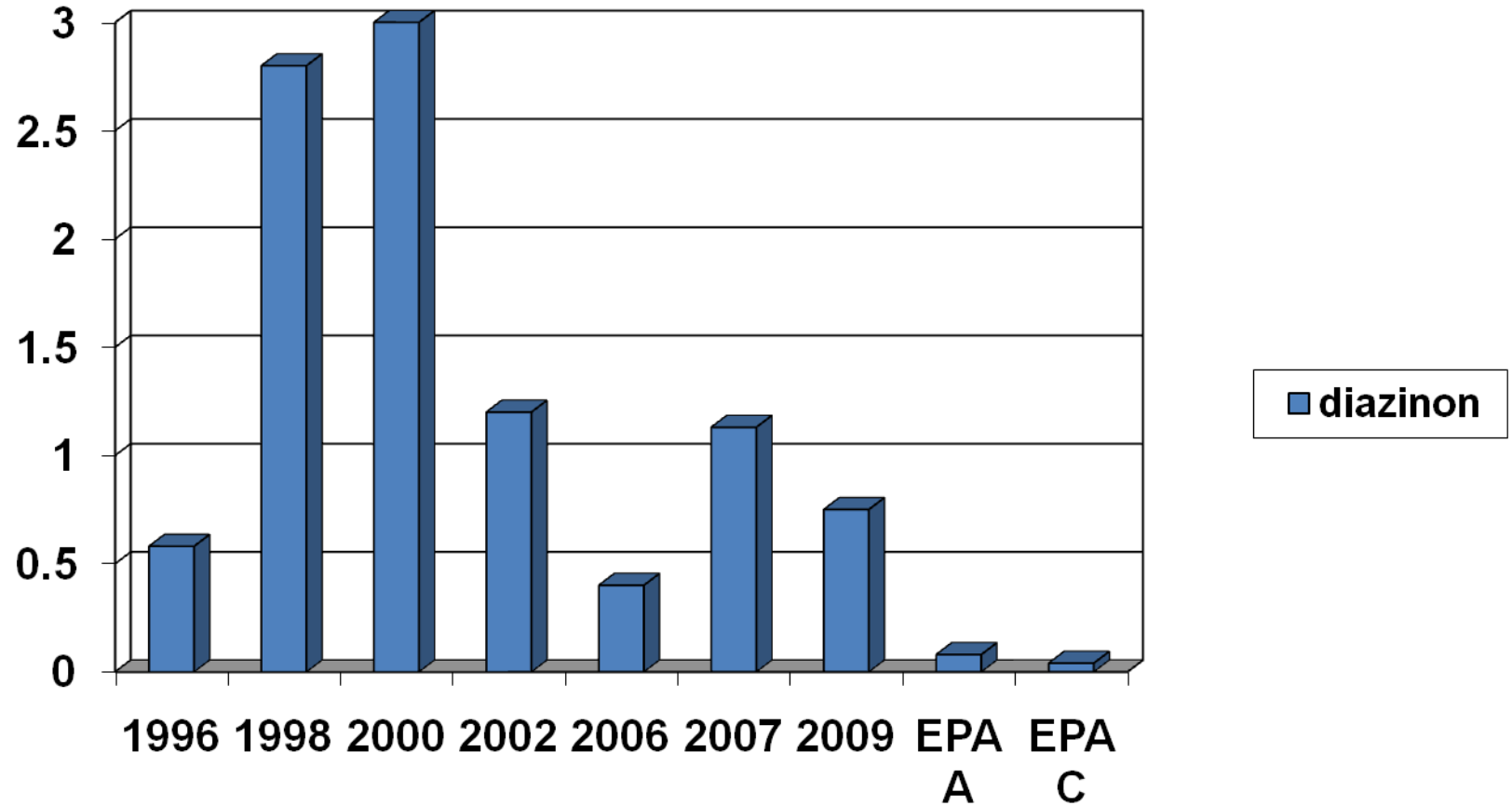
Jacobson Rd

Tidegates (almost matched location)

Three dates two weeks prior to July 13th and two weeks after

But could be amended? **Results to come!**

Averages (ppb) 1996-2009



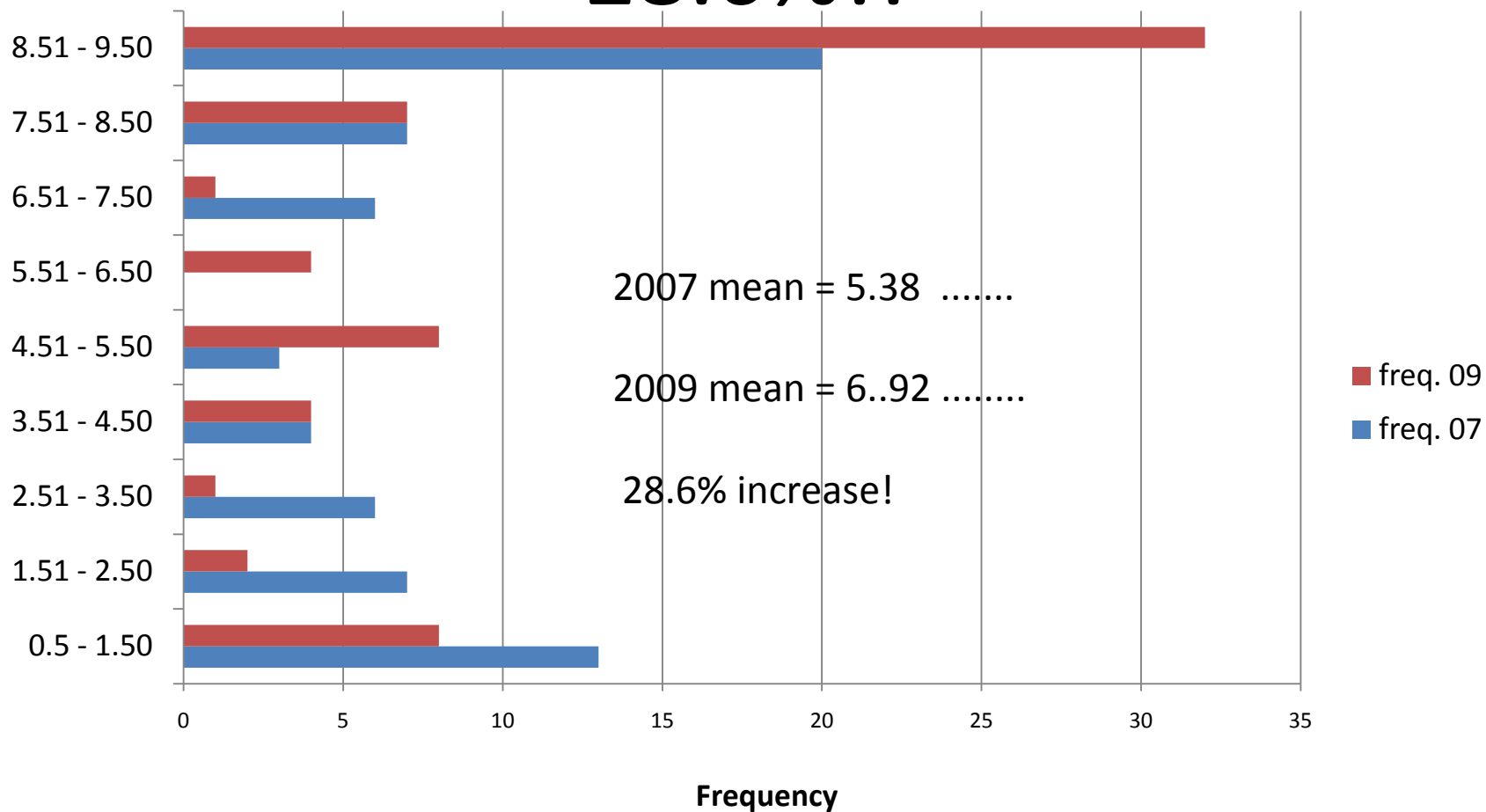
Mitigation Plans

Thanks

How Q (quantitative) scores are derived

Distribution Frequency of Q-Score comparison 2007 vs. 2009 up

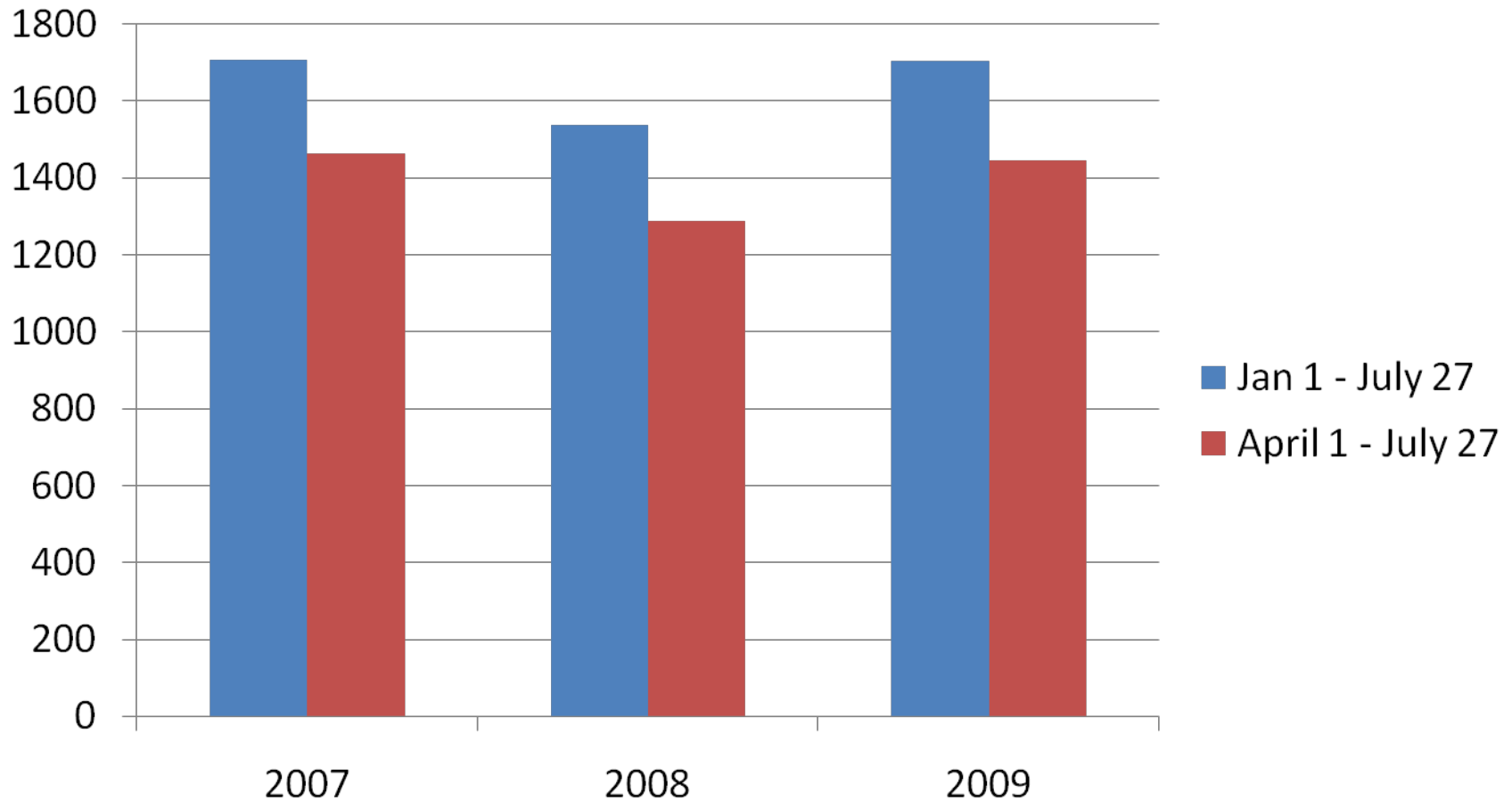
28.6%!!



IPM Data

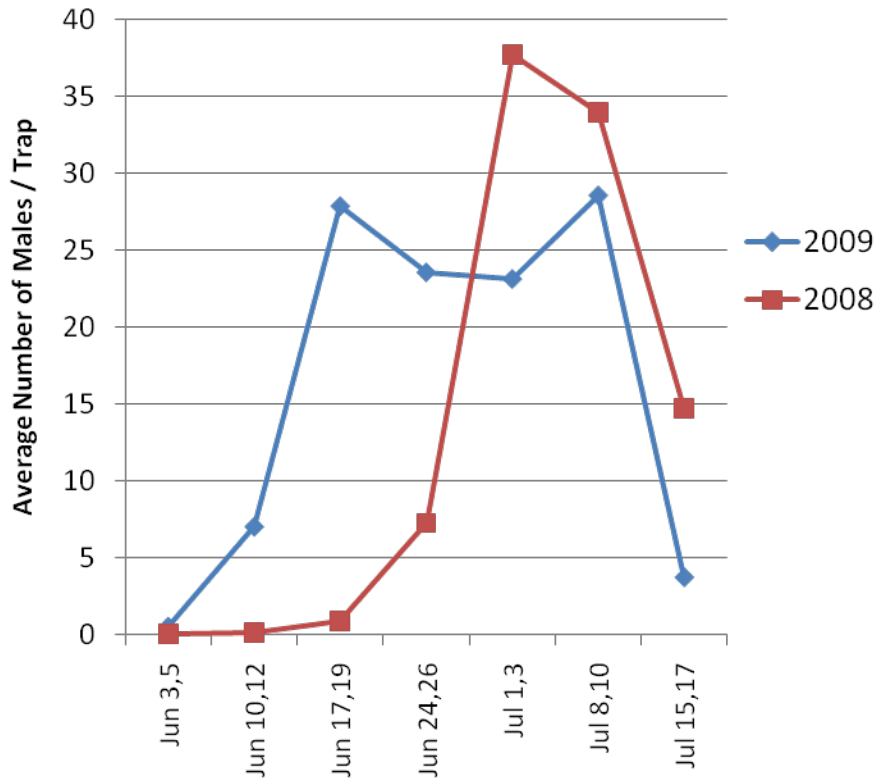
Degree Days (Base 45°F)

2007 & 2009 very similar!

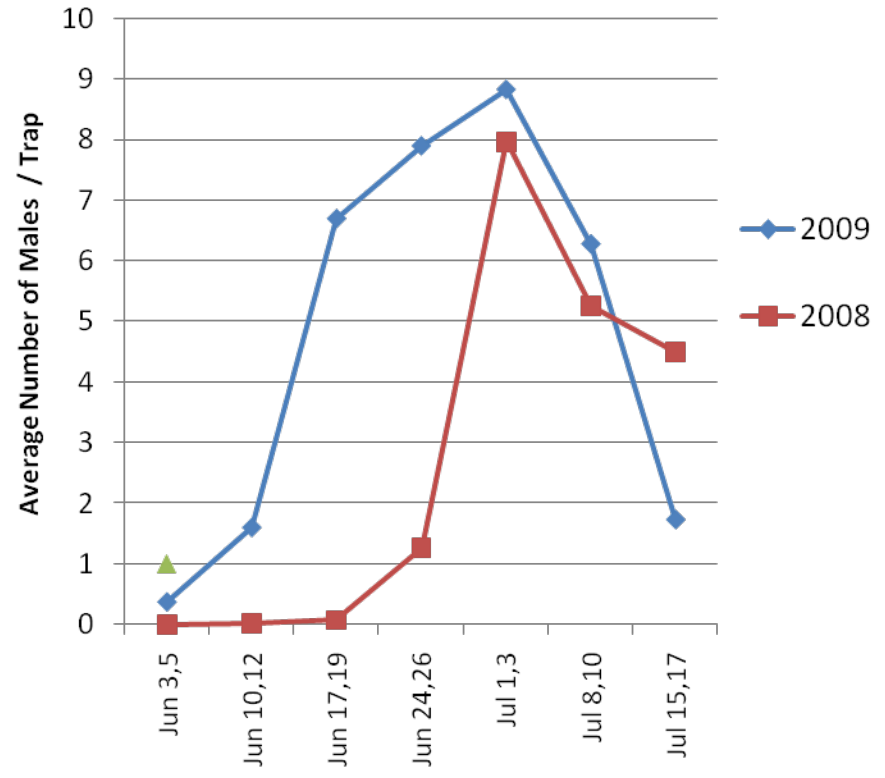


IPM HISTORICAL AVERAGES COMPARISON GRAYLAND - FIREWORM & GIRDLER

Fireworm



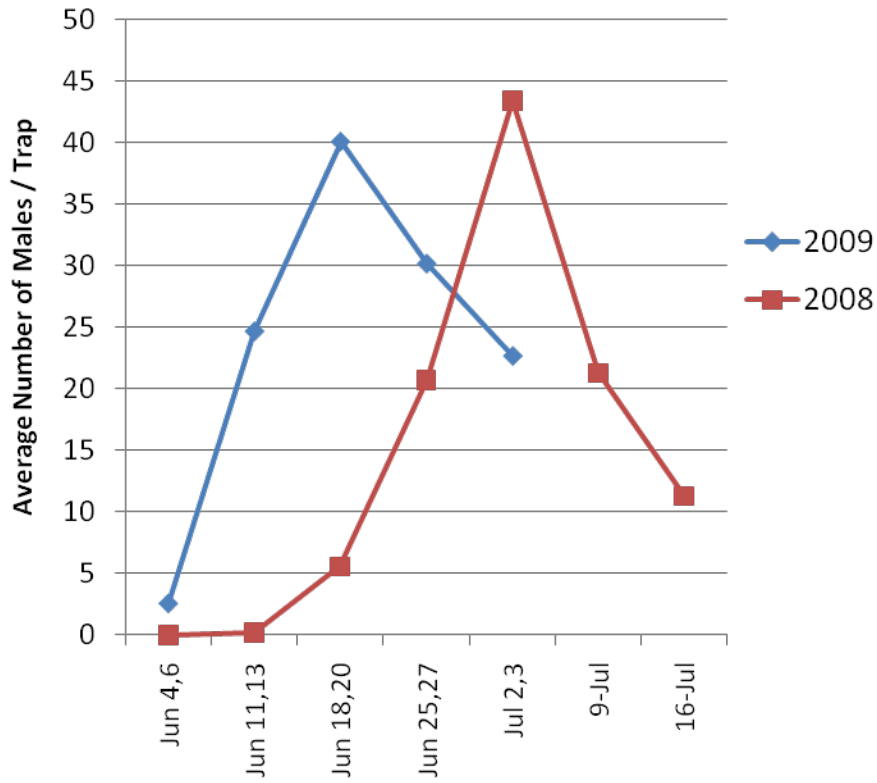
Girdler



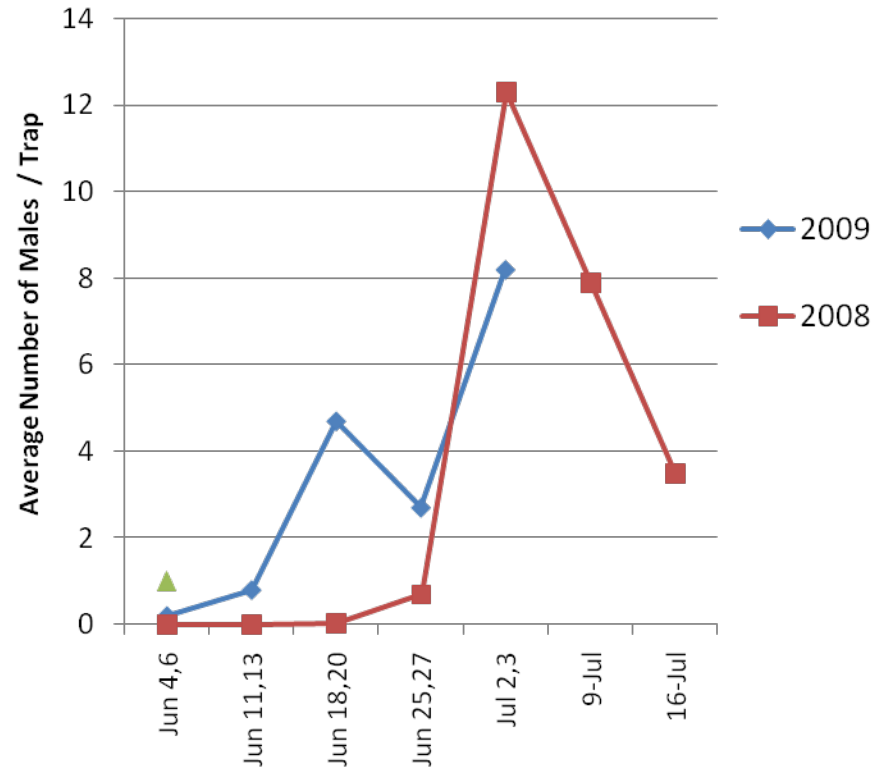
IPM HISTORICAL AVERAGES COMPARISON

Long Beach - FIREWORM & GIRDLER

Fireworm



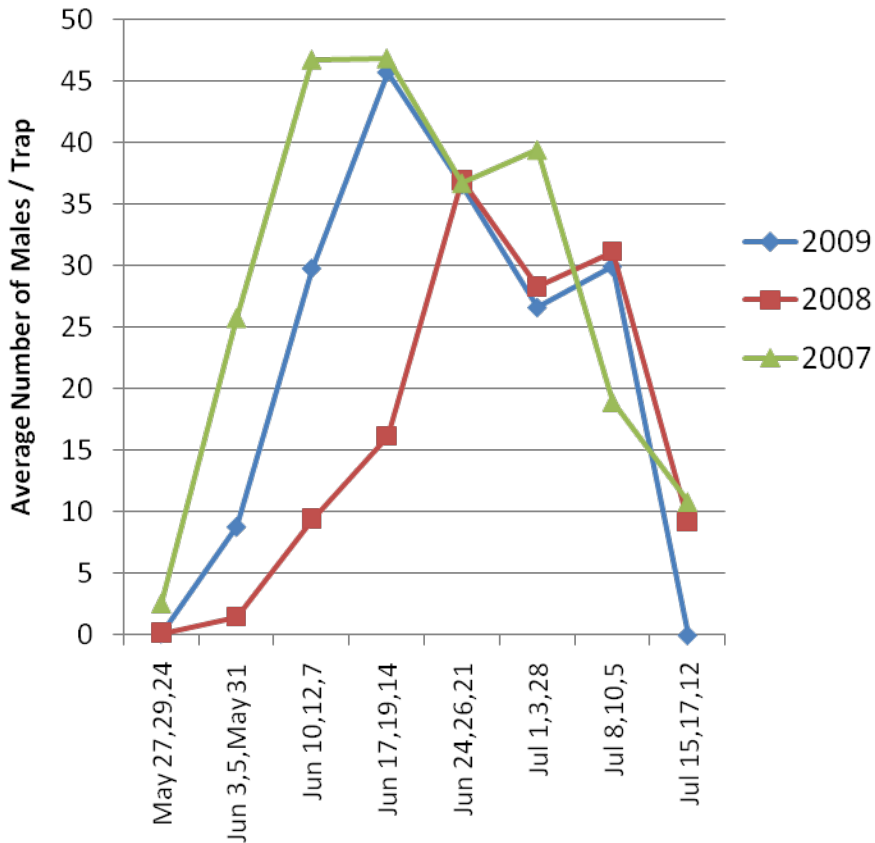
Girdler



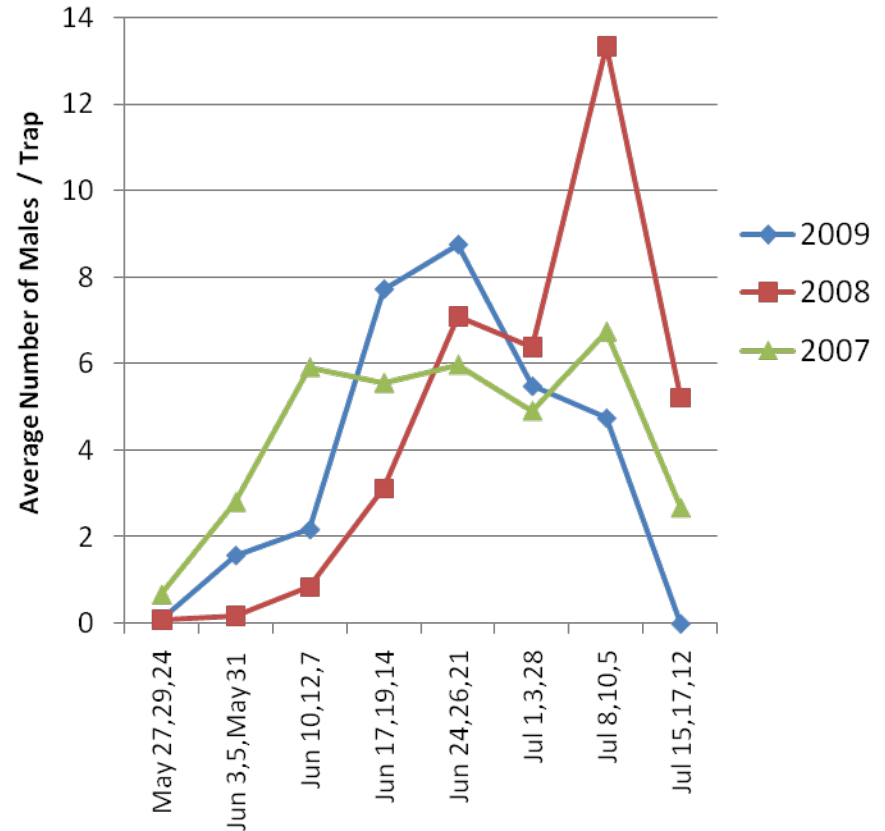
IPM HISTORICAL AVERAGES COMPARISON BANDON - FIREWORM & GIRDLER

2007 & 2009 similar degree days

Fireworm



Girdler



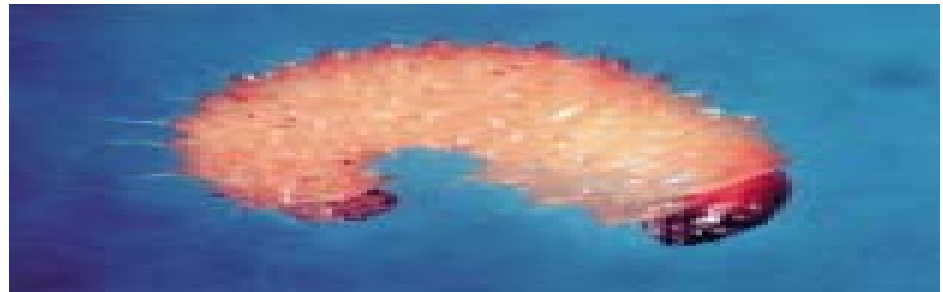
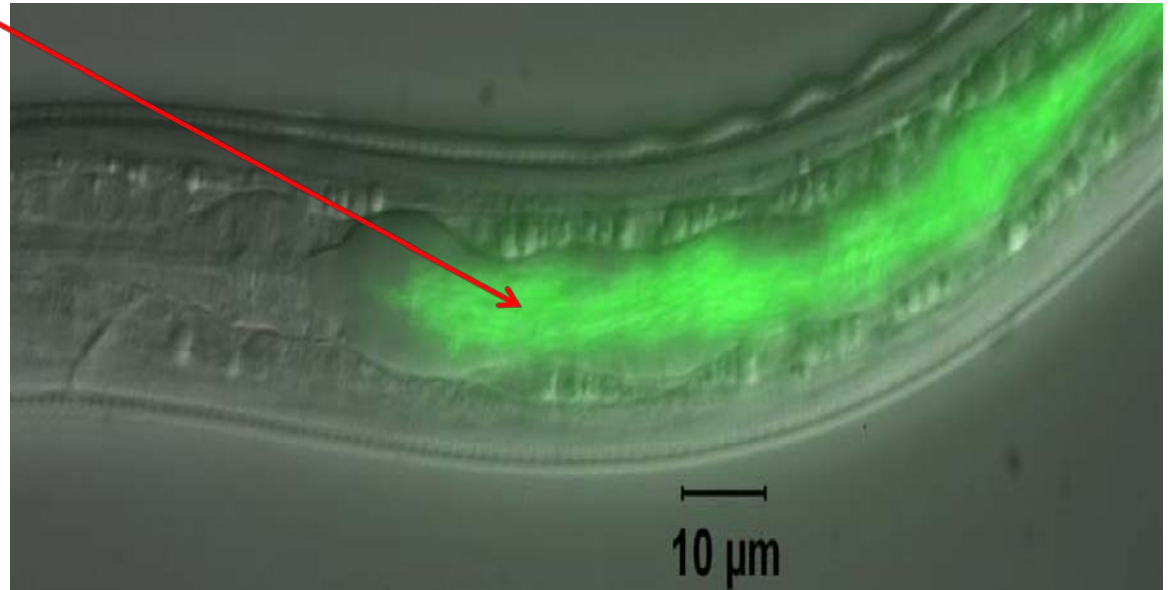
warmer soil temps in 2009 vs 2008

Underutilized OP Replacements for Blackheaded Fireworm

- Intrepid® (IGR) hydroxy-ecdysone mimic
- Success®/Delegate® – (spinosad) Biologically derived from the fermentation of a naturally occurring soil organism. GOOD ON LEPS!
- Avaunt® (Indoxacarb) –blackheaded fireworm
- 2 wks residual, protects predators and good BVW adulticide ; label disconnect?
- How about a IGR/Spinosad ..Avaunt® combo?

Guess and WIN!

What is it? and specific name?



Nematode Considerations

- Soil temperature in the spring
- Product viability (age)
- Product application – NOW (plenty of water)
- Timing
- Target Pest / Host Specificity
- User knowledge
- Behavior – mobile or stationary?
- Cost

Nematode Comparison (BU)

Trade name	Scientific name	Characteristics	Target Pest	Timing
NEMATAC® C	<i>Steinernema carpocapsae</i>	“Ambusher”	Girdler	Two weeks after peak flight
NEMASYS® H	<i>Heterorhabditis megidis</i>	Highly active	Black vine weevil	Spring soil temps > 50°F
NEMASYS® L	<i>Steinernema kraussei</i>	Cold tolerant	Black vine weevil	Spring/Fall?
Nemasys® G	<i>Heterorhabditis</i> species ; <i>H. bacteriophora</i> (HP 88's)?	Active	Chafers/grubs BVW?	Fall? Soil temps warmer than 60°F to be effective

Email: greg.wahl@beckerunderwood.com

Questions?

