



Cranberry Outreach



Pesticide Screening Program

2022 Results

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Extension

UNIVERSITY OF WISCONSIN-MADISON



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FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act
Federal statute that governs the registration, distribution, sale,
and use of pesticides in the United States.

- ❑ 2007 amendment to FIFRA requires EPA review each registered pesticide every 15 years to determine whether pesticides continue to meet the standard for registration
 - Do not present unreasonable adverse effects on **human health** or the **environment**
- ❑ 726 pesticide registered before 2007 (461 conventional agricultural pesticides)
 - First registration review deadline as Oct. 1, 2022
 - Many are delayed beyond deadline

Cranberry pesticides on current EPA reg review workplan

Case Name	Action	Year	Quarter	Docket Number
1 2, 4-D	Proposed Interim Decision	22	3	EPA-HQ-OPP-2012-0330
	Interim Decision	23	N/A	EPA-HQ-OPP-2012-0330
2 Acephate	Proposed Interim Decision; Interim Decision	24	N/A	EPA-HQ-OPP-2008-0915
3 Acetamiprid	Interim Decision	23	N/A	EPA-HQ-OPP-2012-0329
4 Carbaryl	Proposed Interim Decision	22	3	EPA-HQ-OPP-2010-0230
	Interim Decision	23	N/A	EPA-HQ-OPP-2010-0230
5 <u>Chlorothalonil</u>	Proposed Interim Decision	22	3	EPA-HQ-OPP-2011-0840
	Interim Decision	23	N/A	EPA-HQ-OPP-2011-0840
6 <u>Diazinon</u>	Proposed Interim Decision; Interim Decision	26	N/A	EPA-HQ-OPP-2008-0351
7 Dinotefuran	Proposed Interim Decision	23	N/A	EPA-HQ-OPP-2011-0920
	Interim Decision	24	N/A	EPA-HQ-OPP-2011-0920
8 Ferbam	Proposed Interim Decision	22	1	EPA-HQ-OPP-2015-0567
	Interim Decision	22	3	EPA-HQ-OPP-2015-0567
9 Imidacloprid	Proposed Interim Decision	23	N/A	EPA-HQ-OPP-2008-0844
	Interim Decision	24	N/A	EPA-HQ-OPP-2008-0844
10 <u>Mancozeb</u>	Proposed Interim Decision; Interim Decision	23	N/A	EPA-HQ-OPP-2015-0291
11 Norflurazon	Proposed Interim Decision	22	3	EPA-HQ-OPP-2012-0565
	Interim Decision	23	N/A	EPA-HQ-OPP-2012-0565
12 Penthiopyrad (Fontelis)	Preliminary Work Plan	22	4	TBD
13 Phosmet	Proposed Interim Decision; Interim Decision	26	N/A	EPA-HQ-OPP-2009-0316
14 Pronamide	Interim Decision	22	4	EPA-HQ-OPP-2009-0326
15 Propiconazole	Proposed Interim Decision	22	2	EPA-HQ-OPP-2015-0459
	Interim Decision	22	4	EPA-HQ-OPP-2015-0459
16 Fungicide (in IR-4)	Proposed Interim Decision	22	3	EPA-HQ-OPP-2015-0378
	Interim Decision	23	N/A	EPA-HQ-OPP-2015-0378
17 Tetraconazole (Perissim)	Interim Decision	22	3	EPA-HQ-OPP-2015-0061
18 Thiamethoxam	Proposed Interim Decision	23	N/A	EPA-HQ-OPP-2011-0581
	Proposed Interim Decision	24	N/A	EPA-HQ-OPP-2011-0581

Pesticide Updates: Novel Herbicide

- ▶ New group tolerance for a HRAC 12 herbicide
 - Industry is working with registrant on crop safety and product labeling
 - May see labeled product in 2023!

Pesticide Updates: New insecticide in the works!

New IRAC Group 30 Insecticide

- Novel mode of action
- Registrant conducting residue/efficacy trials for the addition of blueberries, cranberry and caneberry to the scope of foliar uses for US & Canada

Other Pesticide Updates:

Ongoing and recently completed IR-4 trials

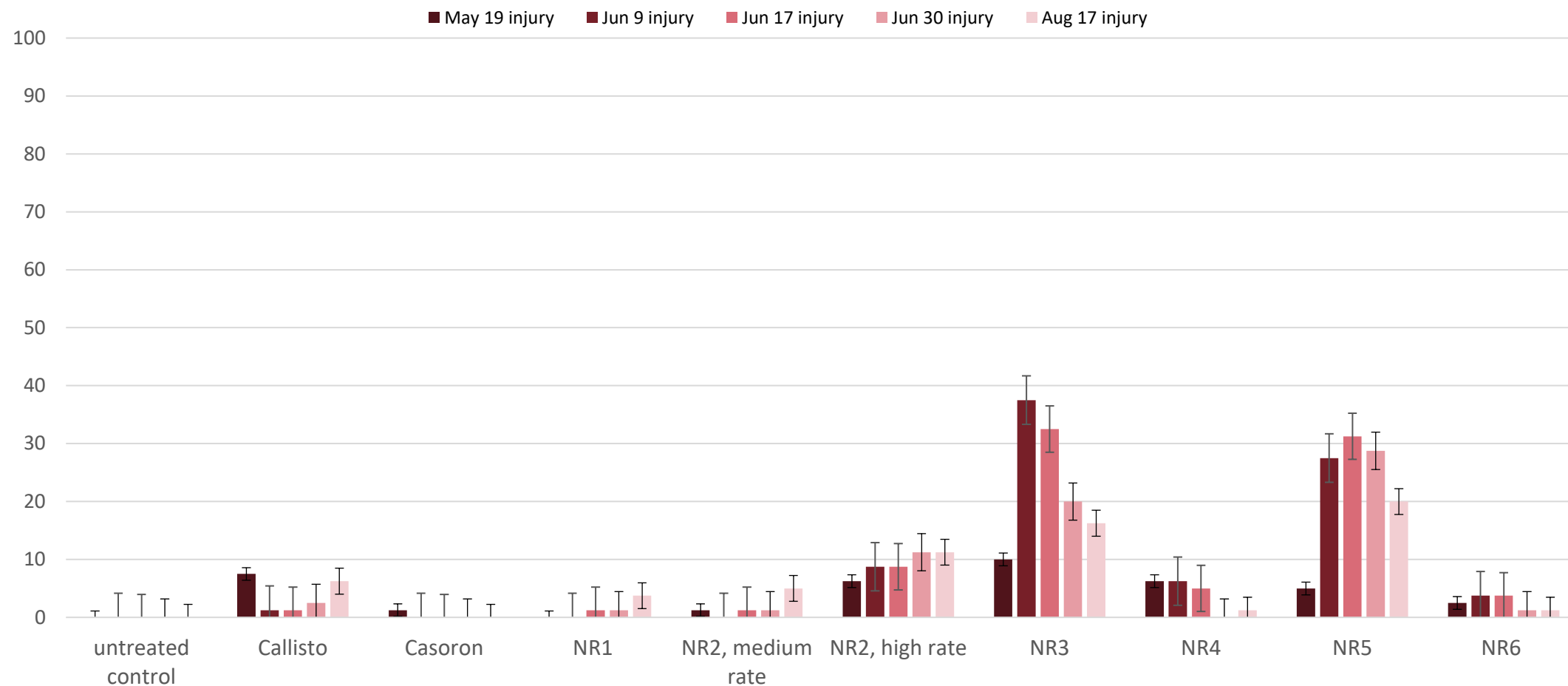
- ▶ **FRAC 7 Fungicide** (Fungicide, Syngenta)
 - IR-4 field trials completed 2022
- ▶ **FRAC 7 Fungicide** (Fungicide, Syngenta)
 - Field work was completed in 2021
 - IR-4 work is currently on-going
- ▶ **FRAC 9&12, US and Canada** (Fungicide, Syngenta)
 - IR-4 field trials completed 2018.
 - Syngenta Canada and Syngenta US working together
 - Syngenta submitted to EPA recently (9/22), with a PRIA date of 10/23.
- ▶ **FRAC 3** (multiple manufacturers, fungicide)
 - IR-4 field trials completed 2019. IR-4 report complete, pending EPA submission.

Herbicides



Crop Safety Trials: Pre-emerge

Pre Emerge Herbicide, Cranberry Injury



401 10	402 9	403 7	404 5	405 4	406 2	407 6	408 3	409 8	410 1
301 9	302 4	303 3	304 1	305 10	306 6	307 8	308 7	309 2	310 5
201 3	202 7	203 4	204 5	205 8	206 2	207 9	208 1	209 10	210 6
101 1	102 2	103 3	104 4	105 5	106 6	107 7	108 8	109 9	110 10

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Target Weed Trials: Pre-Emerge

NR1:

grasses
dewberry

NR2:

grasses
rushes
dewberry
Spirea hardhack

NR3:

(haircap moss)
grasses
Spirea hardhack



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201 3	202 7	203 4	204 5	205 8	206 2	207 9	208 1	209 10	210 6
101 1	102 2	103 3	104 4	105 5	106 6	107 7	108 8	109 9	110 10

Target Weed Trials: Pre-Emerge

NR4:

grasses

bunchgrass

Spirea Hardhack

NR5:

Spirea hardhack

NR6:

grasses



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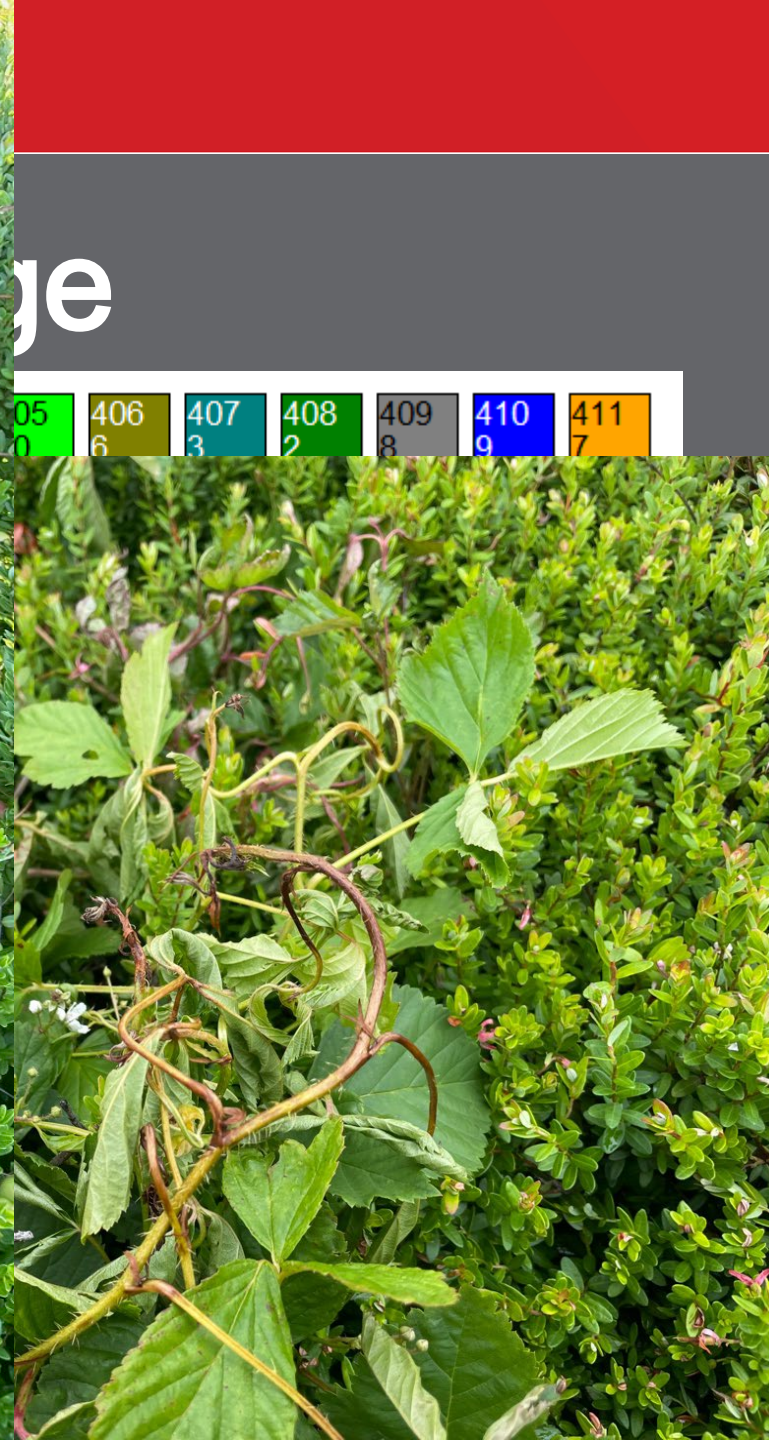
Crop Safety

NR product (QuinS)
post-emerge timing

More injury was seen
prior trial years, esp
Next year: new for
focusing on post-bl



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ge

405
0

406
6

407
3

408
2

409
8

410
9

411
7

411
7

Target Weed Trials: Post-Emerge

Weeds controlled:

Sticktite (>90%-100%)
Dewberry (30-90%)
Labrador tea (40-50%)
Leatherleaf (15-30%)
Sedges (15%)
Perennial grasses (10%)

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101 1	102 2	103 3	104 4	105 5	106 6	107 7	108 8	109 9	110 10	111 11



Fungicides



Use Patterns



20%



50%



80%

501 8	502 5	503 7	504 6	505 4	506 3	507 2	508 1
401 1	402 2	403 4	404 8	405 3	406 6	407 5	408 7
301 3	302 8	303 6	304 5	305 7	306 2	307 4	308 1
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How does FRAC 7 work with our existing chemistries?

FRAC 3: demethylation inhibitors (DMI) (inhibits synthesis of plasma membrane component)

FRAC 7: succinate dehydrogenase inhibitors
(inhibits mitochondrial respiration at succinate location)

FRAC 11: strobilurins (inhibits mitochondrial respiration at Q^0 site)



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Insecticides



Blunt Nosed Leaf Hopper

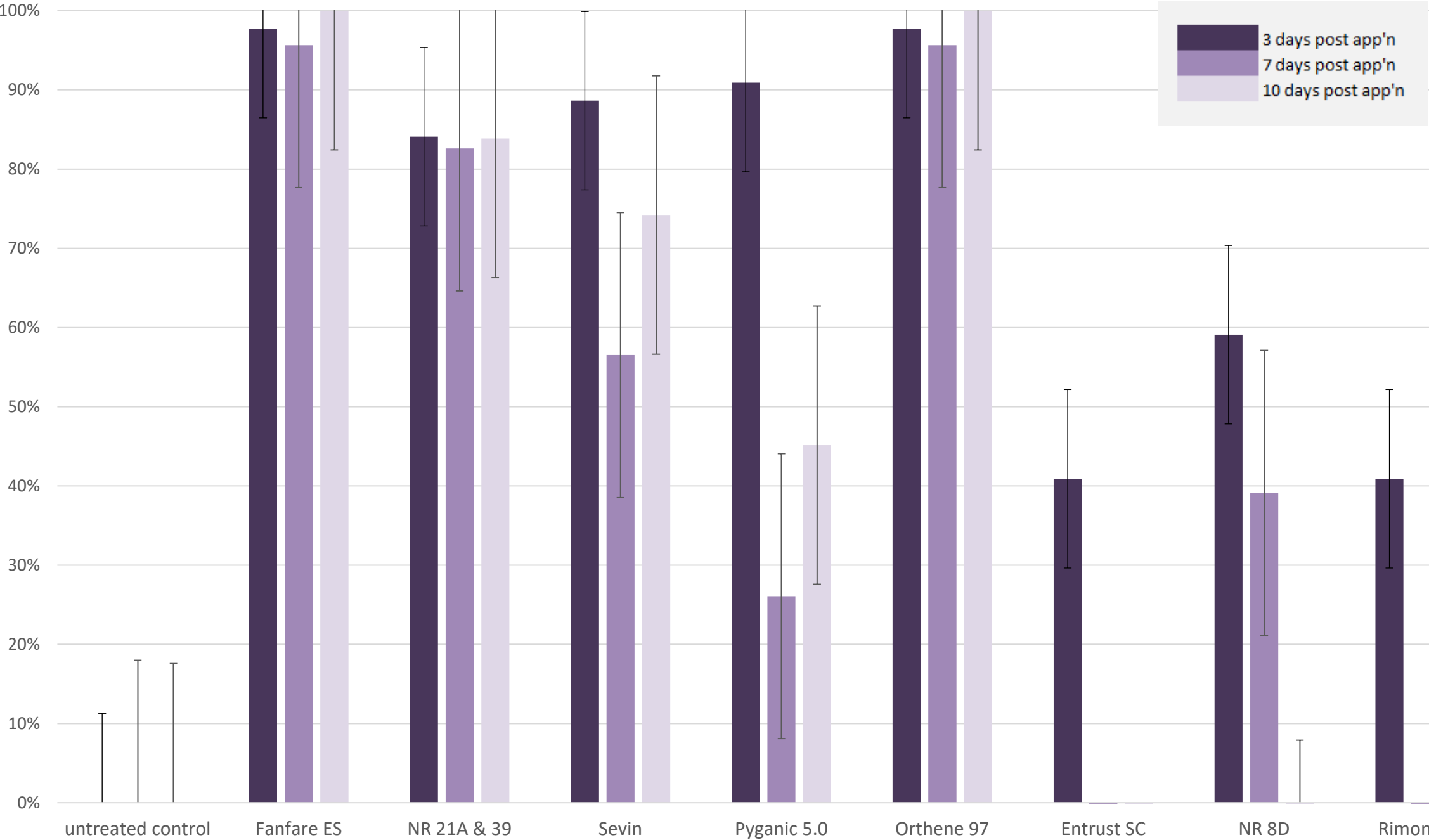
Pre-Bloom



501 8	502 1	503 6	504 2	505 3	506 4	507 5	508 9	509 7
401 4	402 6	403 2	404 7	405 5	406 9	407 8	408 3	409 1
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BNLH control, PRE-bloom



Blunt Nosed Leaf Hopper

Post-bloom



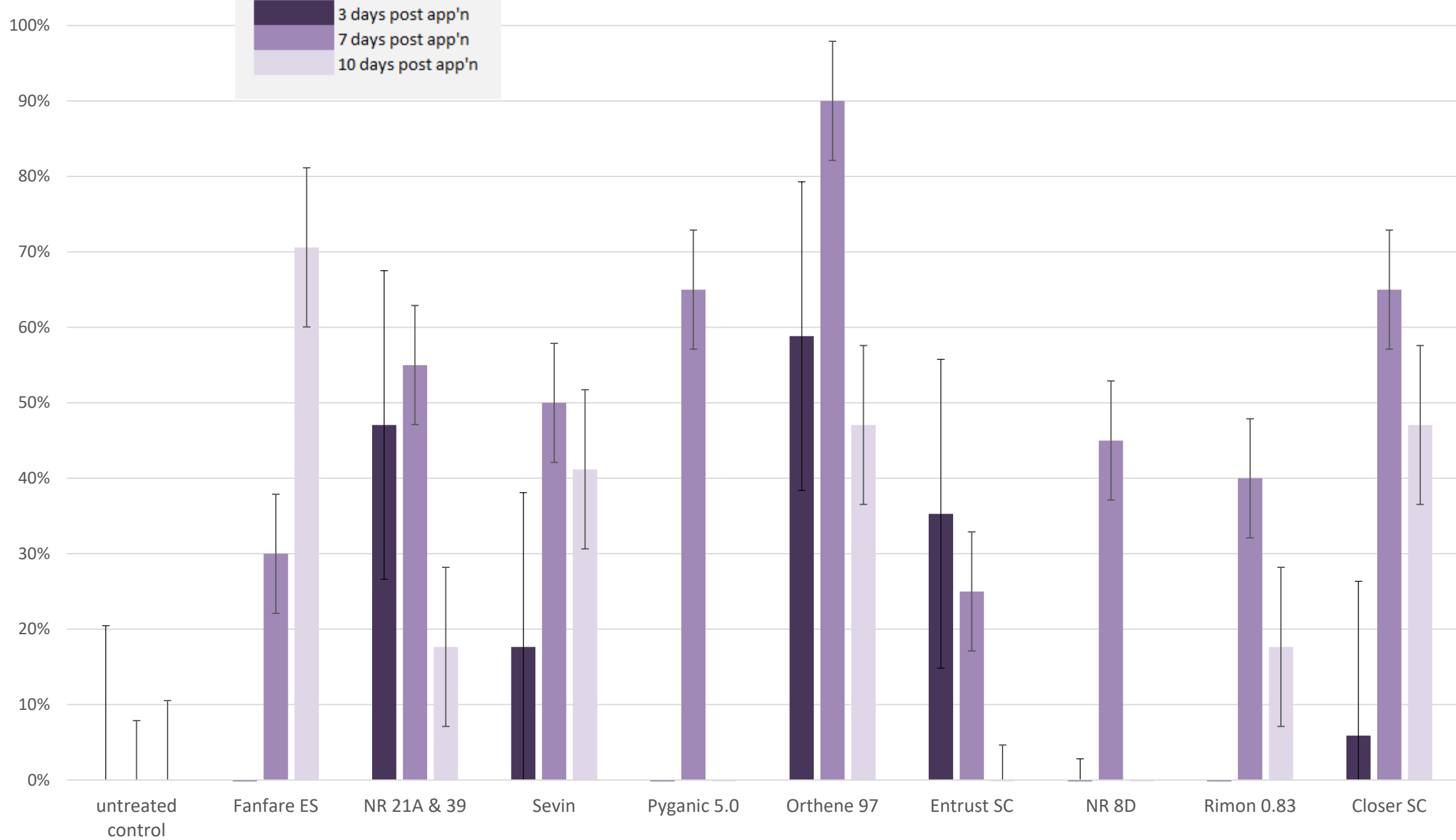
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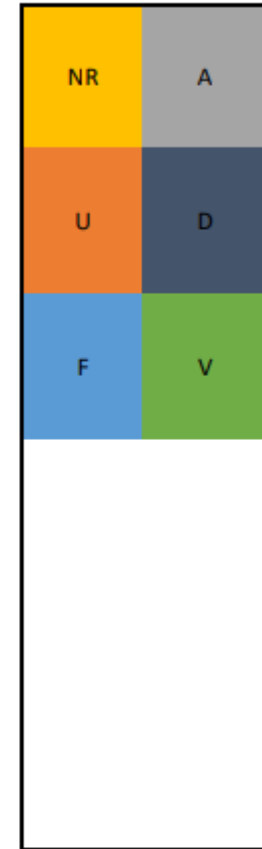
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BNLH control, POST-bloom



Flea Beetle



V	Venom
F	Fanfare
NR	NR Chem
A	Actara
U	unsprayed control
D	Danitol

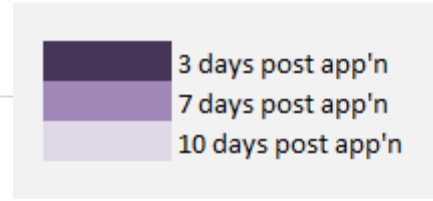
treatment width = 82.5 ft
treatment length = 270 ft

label PHI; check with
your handler

Flea Beetle Control, Large Scale Trial

PHI=30d

PHI=3d



PHI=30d

PHI=7d

PHI=7d



unsprayed control

Actara

Venom

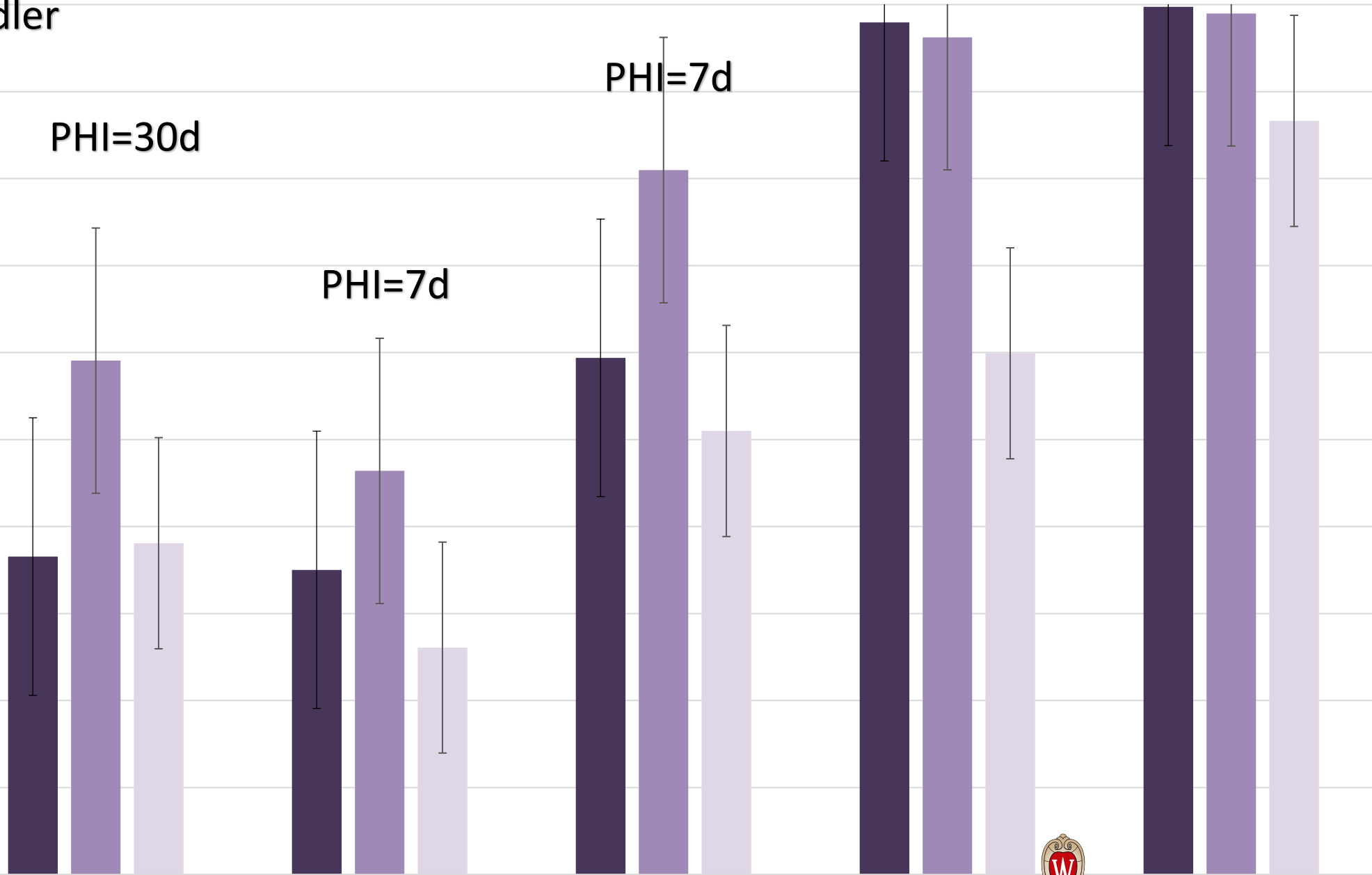
NR 21A & 39

Fanfare



Danitol

00%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%



Thoughts, questions? What else do you wonder?



Extension
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