2011 GFVGA: MB Alternatives – Will it Ever End??

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Potential MB Alternatives

1. Pic Chlor 60 + herbicides
2. UGA 3-WAY
3. Paladin Pic + herbicides
4. WSP + herbicides

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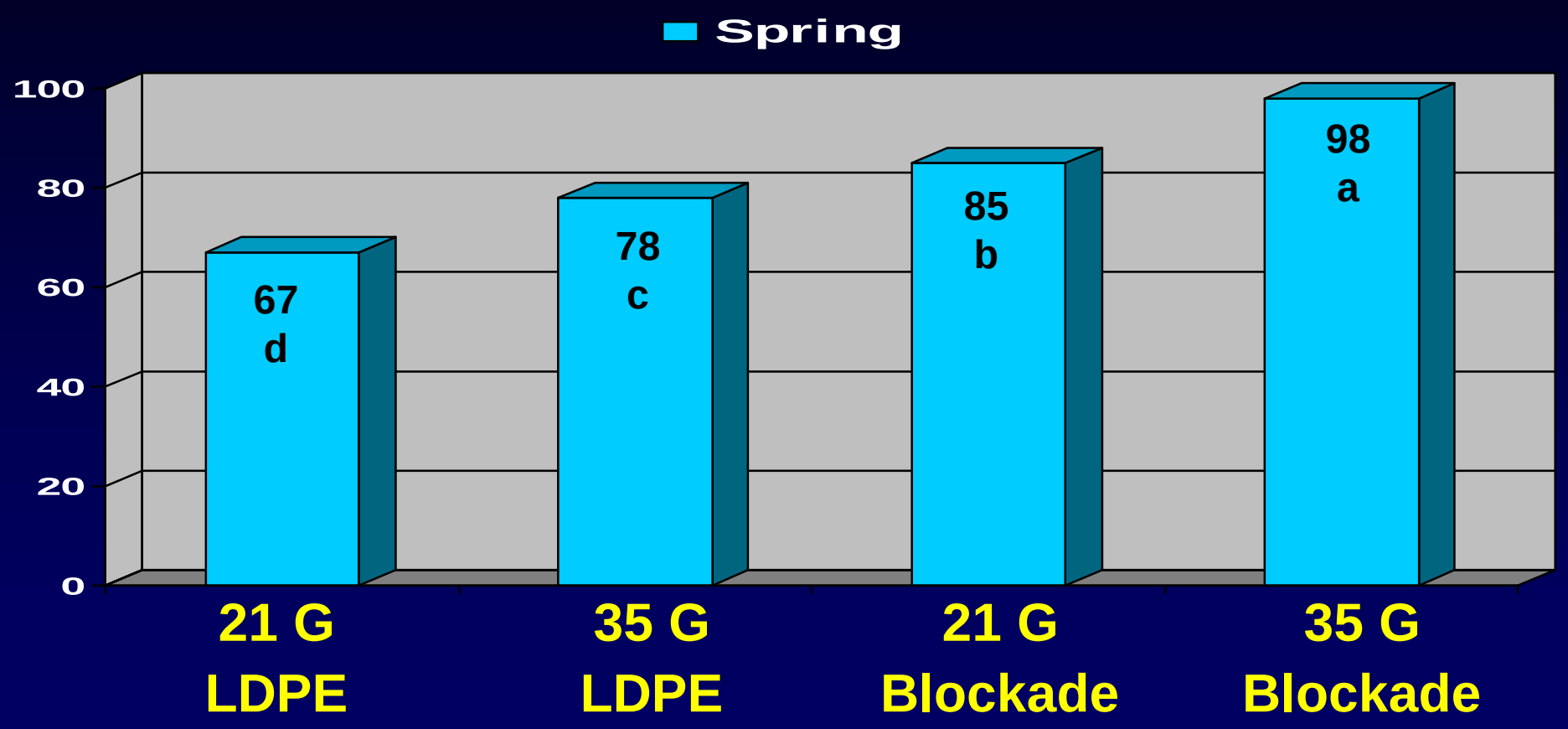
Pic Chlor 60

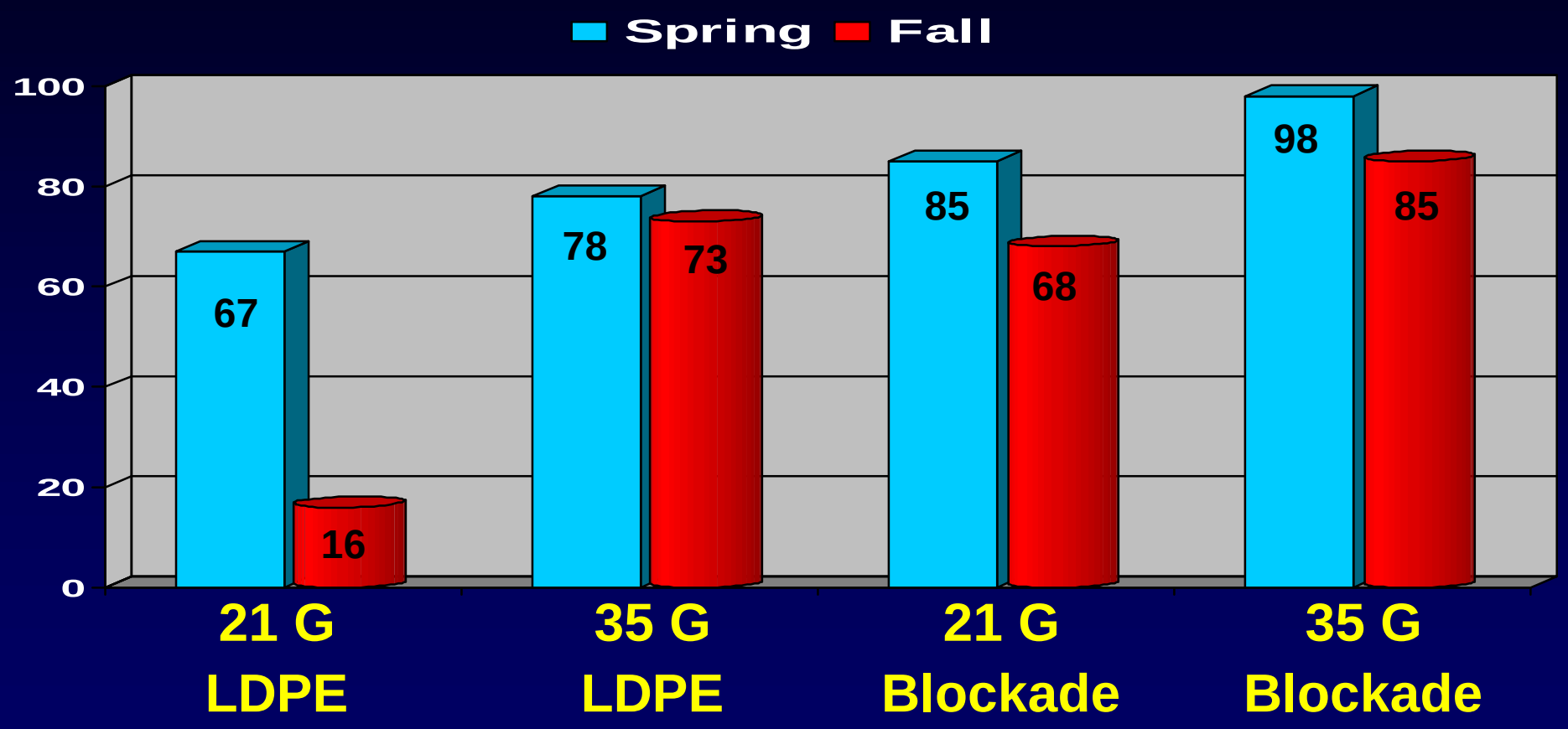
1. Rate
2. Mulch
3. Soil temp (spring vs fall)
4. Crop
5. Number crops per fumigation
6. Herbicide system required

Nutsedge Response to Pic Chlor 60 plus herbicides in PEPPER. Ponder, 2010.



Plots were 1 bed by 50 feet. Spring soil temp 55 F.

Nutsedge Response to Pic Chlor 60 plus herbicides in PEPPER. Ponder, 2010.



LSD for spring = 6; LSD for fall = 7.

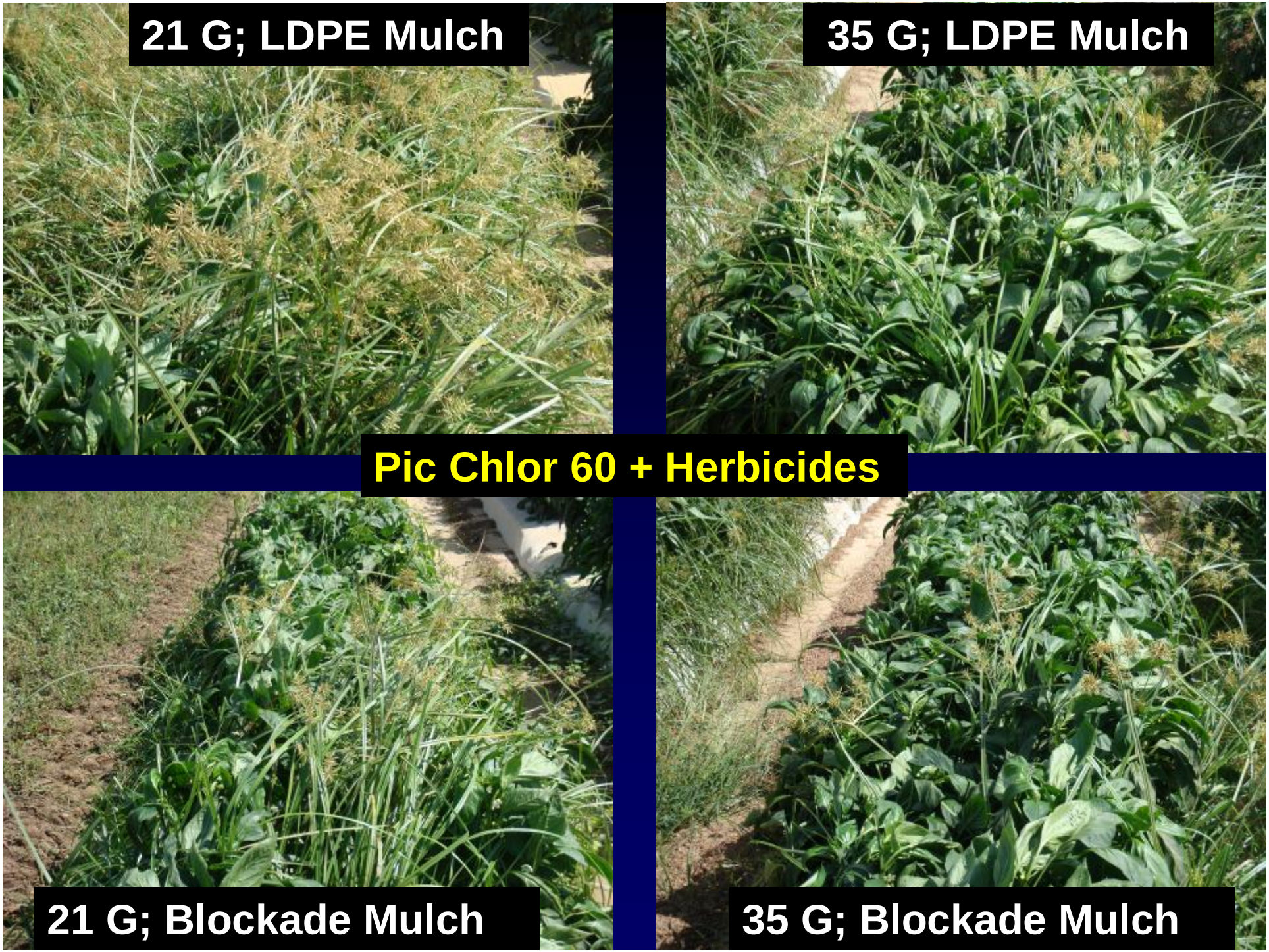
Plots were 1 bed by 50 feet. Spring soil temp 55 F; Fall soil temp 89.

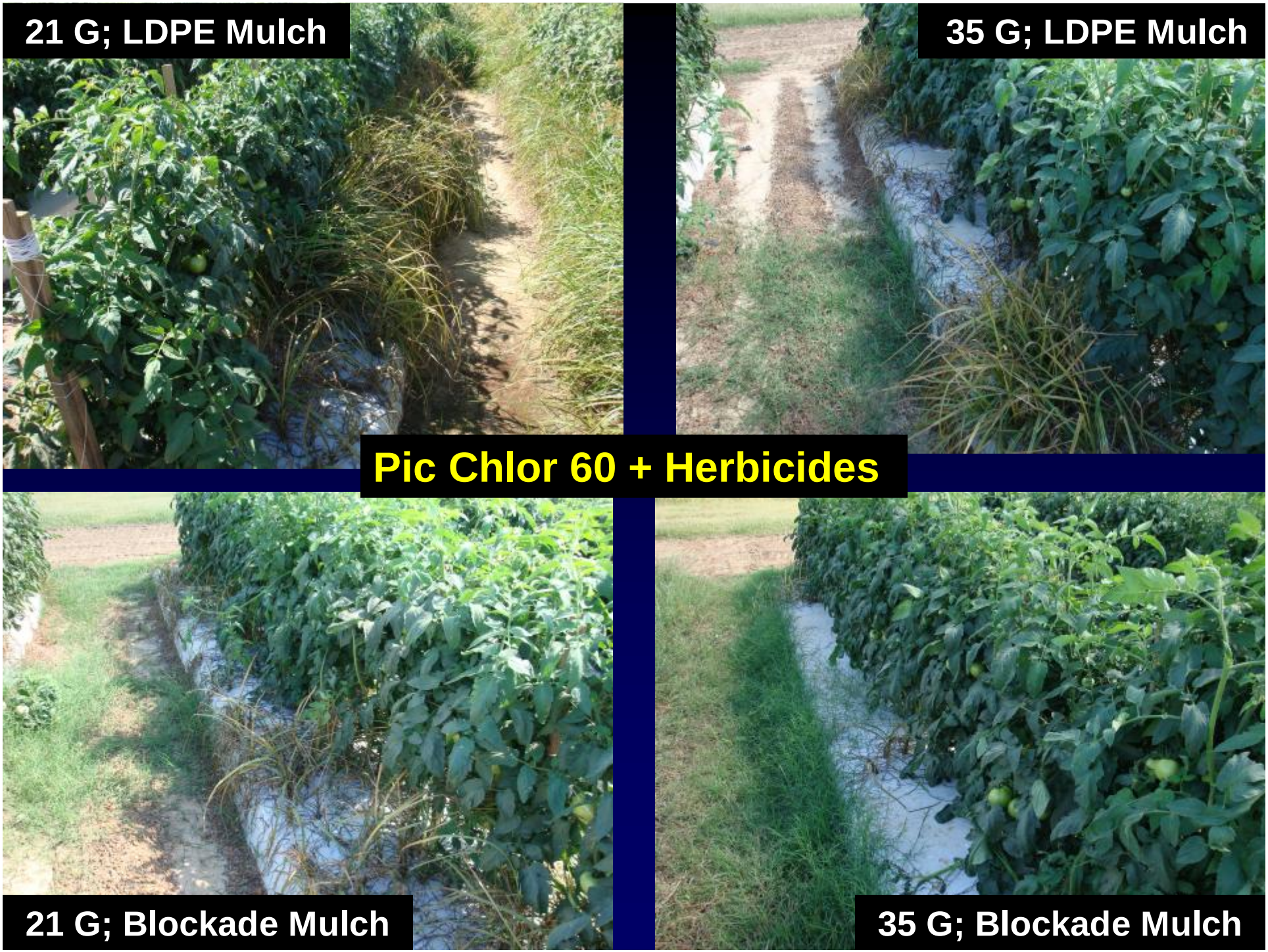
Pic Chlor 60

1. Rate
2. Mulch
3. Soil temp (spring vs fall)
4. Crop
5. Number crops per fumigation
6. Herbicide system required

PIC CHLOR 60: 21 G, Blockade Mulch

Add Sandea POST if no carryover problems


21 G; LDPE Mulch
35 G; LDPE Mulch
Pic Chlor 60 + Herbicides
21 G; Blockade Mulch
35 G; Blockade Mulch


21 G; LDPE Mulch
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21 G; Blockade Mulch
35 G; Blockade Mulch

Fall Comparison of MB Alternatives TyTy, 2010.

Paladin Pic + Herbicides

Blockade Mulch

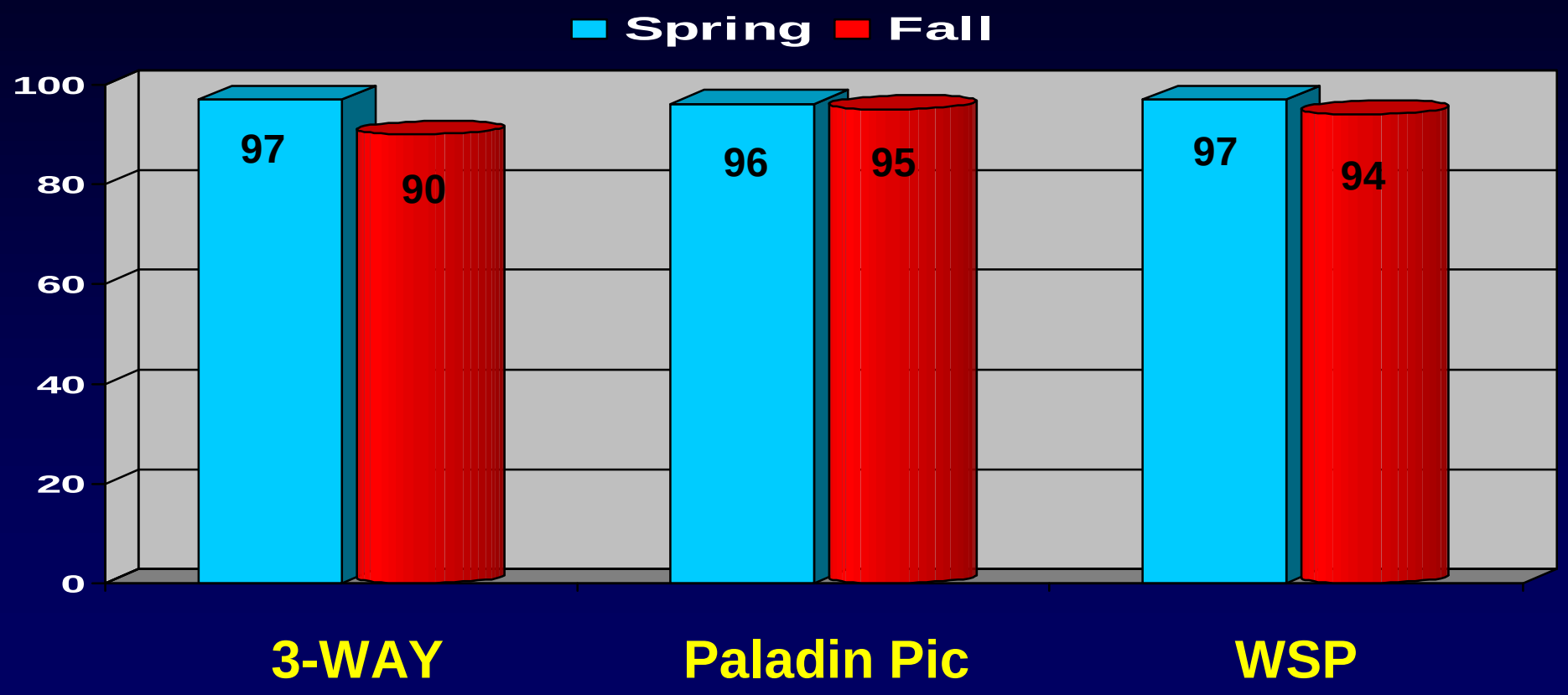
WSP + Herbicides

Blockade Mulch

3-WAY

LDPE Mulch

Nutsedge Response to the 3-WAY, Paladin Pic, and WSP plus herbicides in PEPPER. TyTy, 2010.



LSD for spring = 6; LSD for fall = 7.

Plots were 1 bed by 50 feet. Spring soil temp 55 F; Fall soil temp 89.

Telone/Pic/Vapam

Spring applications = 17 of 18 experiments over 5 years with greater than 93% nutsedge control (less effective in the fall)

Ideal Placement

Vapam = 4 inches

Chloropicrin = 8 inches

Telone = 12 inches

More Common

Vapam = 4 inches

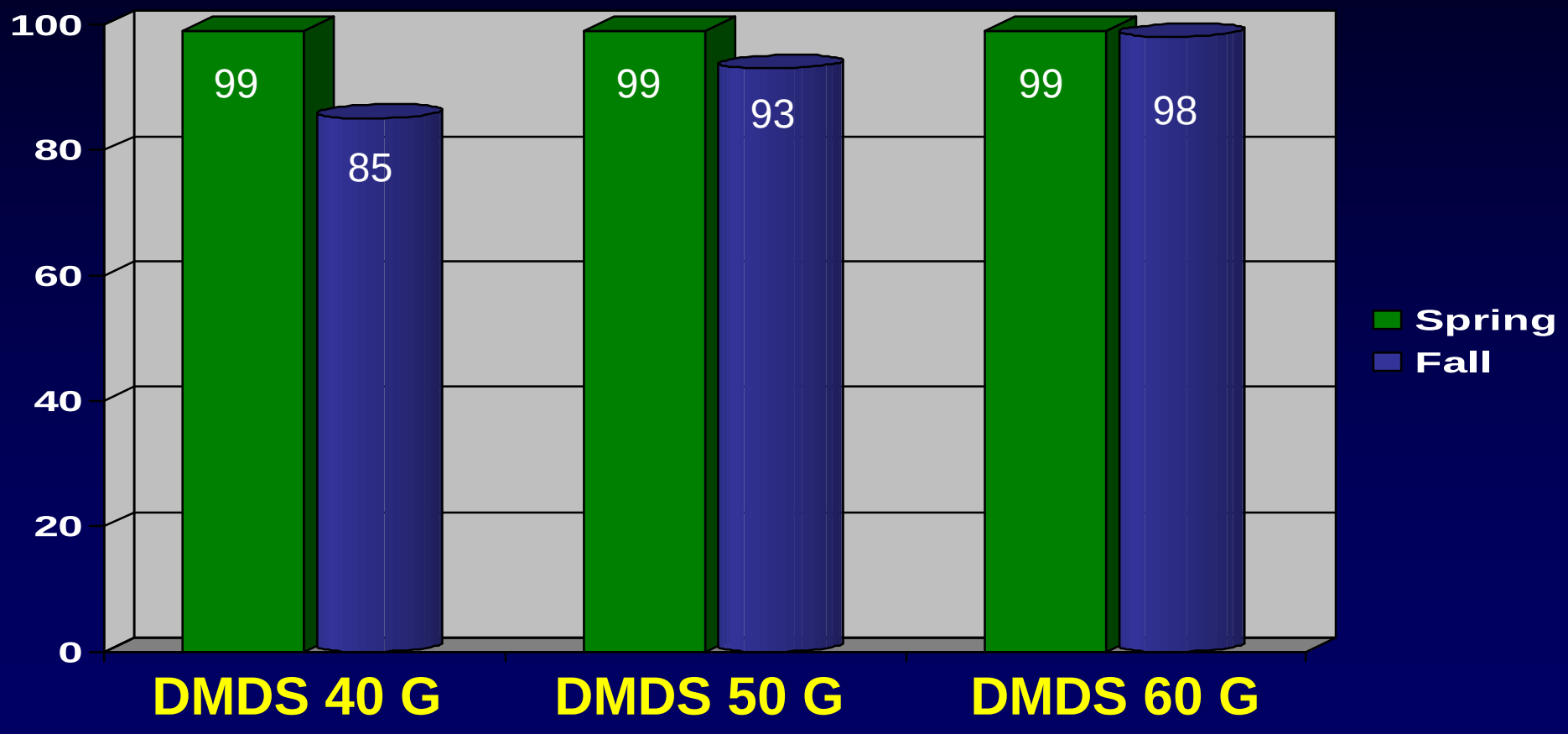
Pic Chlor 60 = 8 inch

Note moisture
and compaction

Paladin Pic (DMDS + Pic)

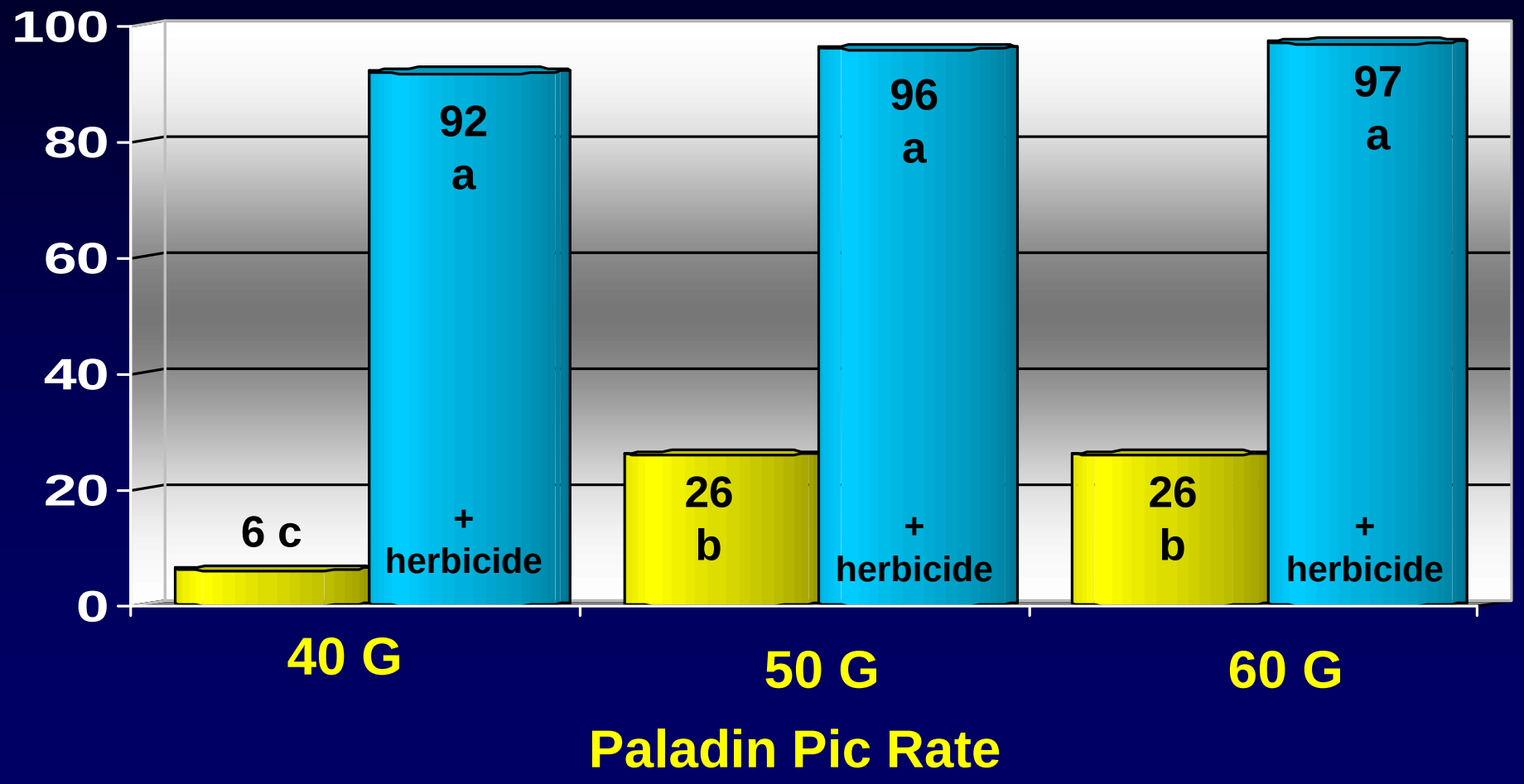
1. Paladin Labeled for Georgia in Nov/Dec
2. Recommend 79:21 mixture with chloropicrin
3. Same application procedures as MB
4. Culpepper rate = 50 GPA (if economical)
5. Excellent nutsedge control; needs help on annual grasses, pigweed, and likely other small seeded annual broadleaf weeds.

Percent Purple Nutsedge Control by Paladin at Pepper Harvest. Ponder, Spring 2008.



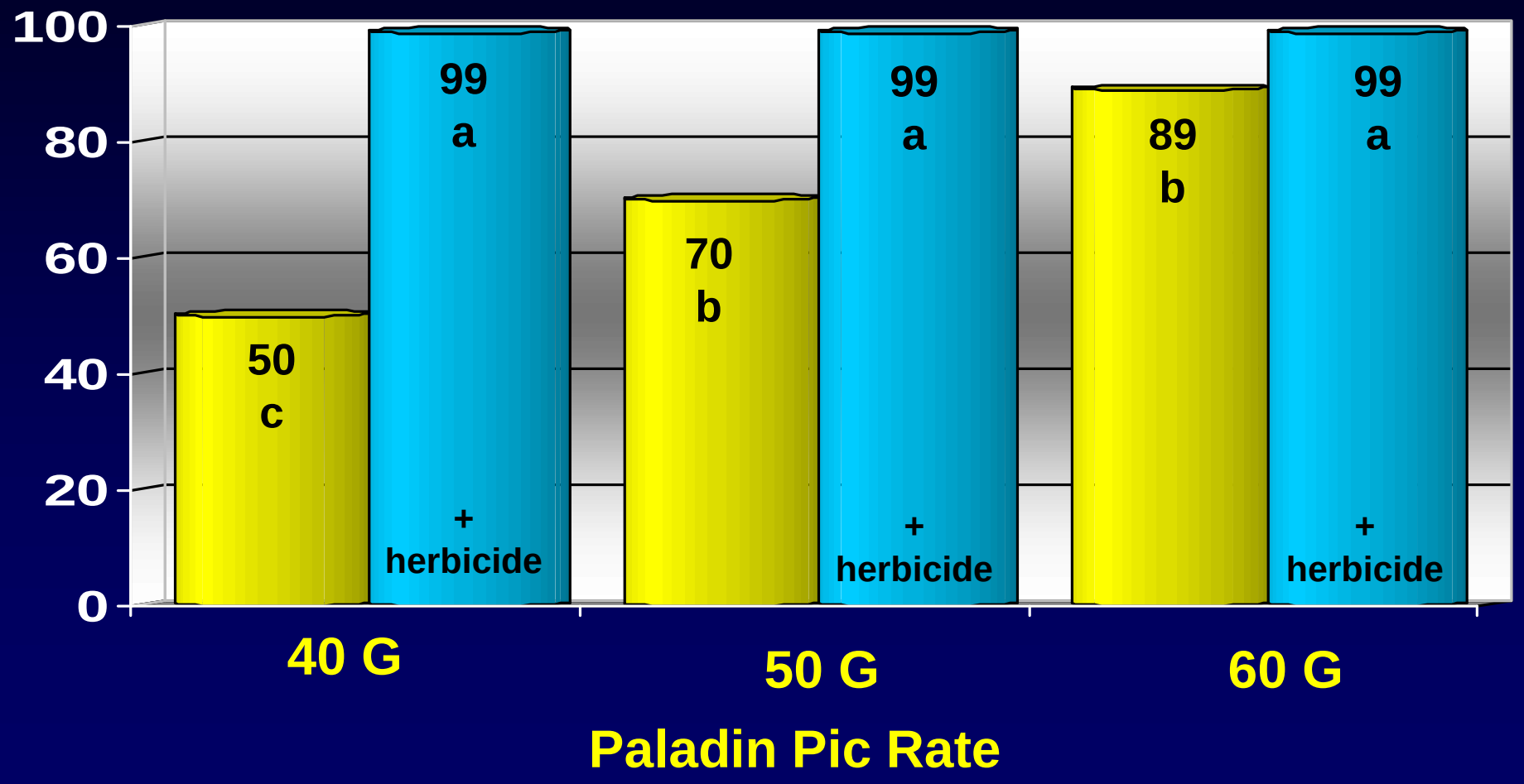
Plots were 1 bed by 50 feet. Spring soil temp 60 F; Fall soil temp 93. Blockade mulch.

Percent large crabgrass control at harvest in bell pepper. TyTy, GA 2010.



Herbicide = Devrinol preplant and Dual Magnum POST

Percent pigweed control at harvest in bell pepper. TyTy, GA 2010.



Herbicide = Devrinol preplant and Dual Magnum POST

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Paladin Pic (DMDS + Pic)

1. Labeled ????
2. 79:21 mixture with chloropicrin
3. Same application procedures as MB
4. Excellent nutsedge control; needs help on annual grasses, pigweed, and likely other small seeded annual broadleaf weeds.
5. Must use high barrier mulch as listed on the label

Paladin Pic Labeled Tarps

Olefinas Embossed VIF,
Klerks VIF,
Pliant Blockade (1.25 mil) black or white,
XL Blockade (0.00125),
Pliant Metalized black VIF.
Canslit Metalized (1.25 mil) high barrier black or white,
FilmTec VIF (1.25 mil),
Ginegar VIF Embossed,
Cadillac VIF,
Guardian VIF (1.2 mil),
Mid-South Extrusion VIF,
Bromostop (1.38 mil)

Paladin Pic 50 G, Blockade

Paladin Pic 70 G, LDPE

Paladin Pic

1. Labeled ????
2. 79:21 mixture with chloropicrin.
3. Same application procedures as MB.
4. Excellent nutsedge control; needs help on annual grasses, pigweed, and likely other small seeded annual broadleaf weeds.
5. Must use high barrier mulch.
6. Smell is a serious concern; must be addressed.

Mitigating Smell Issues

1. Moisture must be ideal
2. Compaction

Mitigating Smell Issues

1. Moisture must be ideal
2. Compaction
3. No previous crop residue
4. Purge injection lines before lifting shank from soil.

Paladin Pic Plant Back Interval

Based on mean daily low soil temp at 8”

50-54 F: 42 day plant back

55-60 F: 35 day plant back

61-70 F: 28 day plant back

>70 F: 21 day plant back

Paladin Pic Buffer Zone

% Row treated	Paladin Pic 79:21 Rate	5	10	15	20	25	30	35
50%	45 GPA	25	25	35	60	80	95	115
50%	50 GPA	25	30	55	80	100	120	140
50%	55 GPA	25	40	65	95	115	135	155
50%	60 GPA	25	50	80	110	135	155	175

Paladin Pic Community Outreach

Paladin Community Outreach Brochures

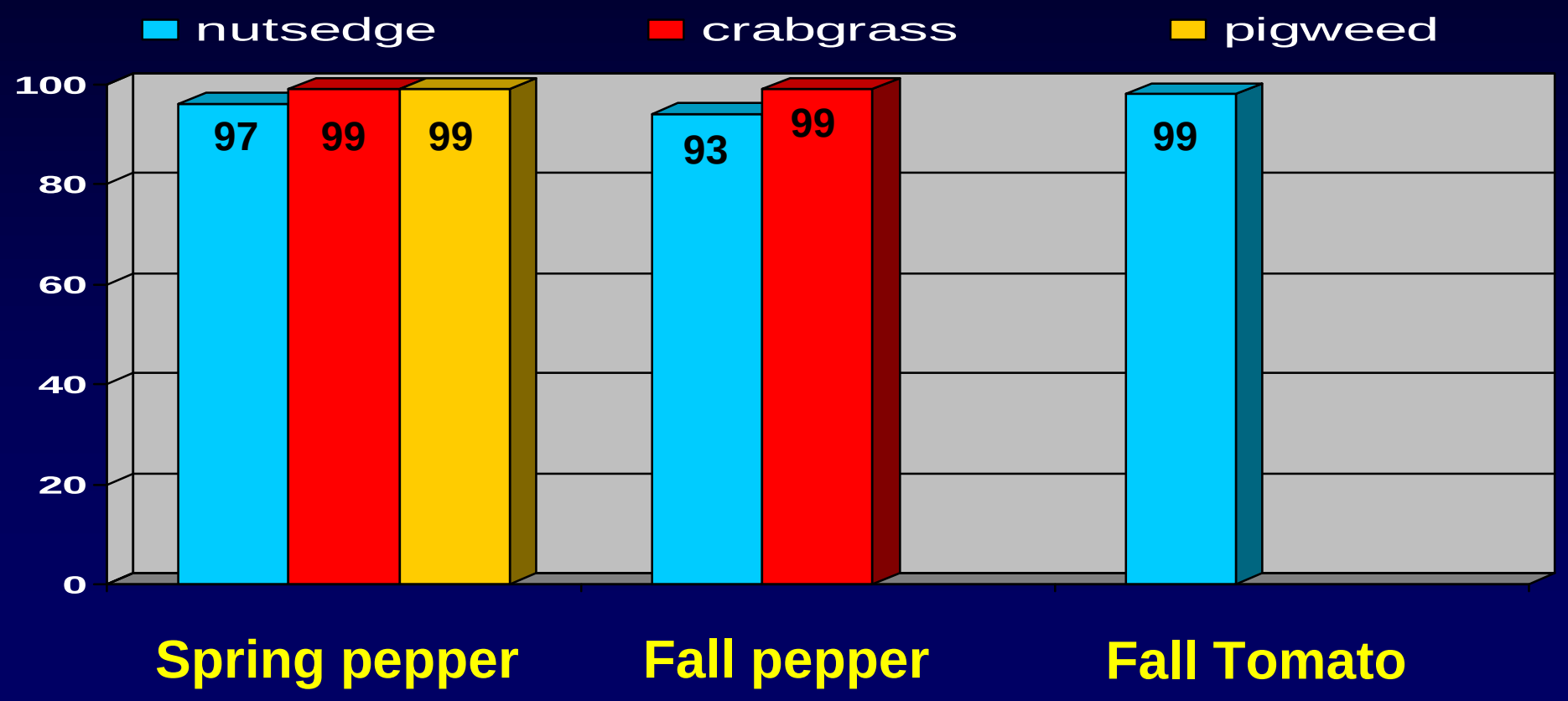
Paladin 1st Responder Bulletins

Steward this product or it will be gone quickly!

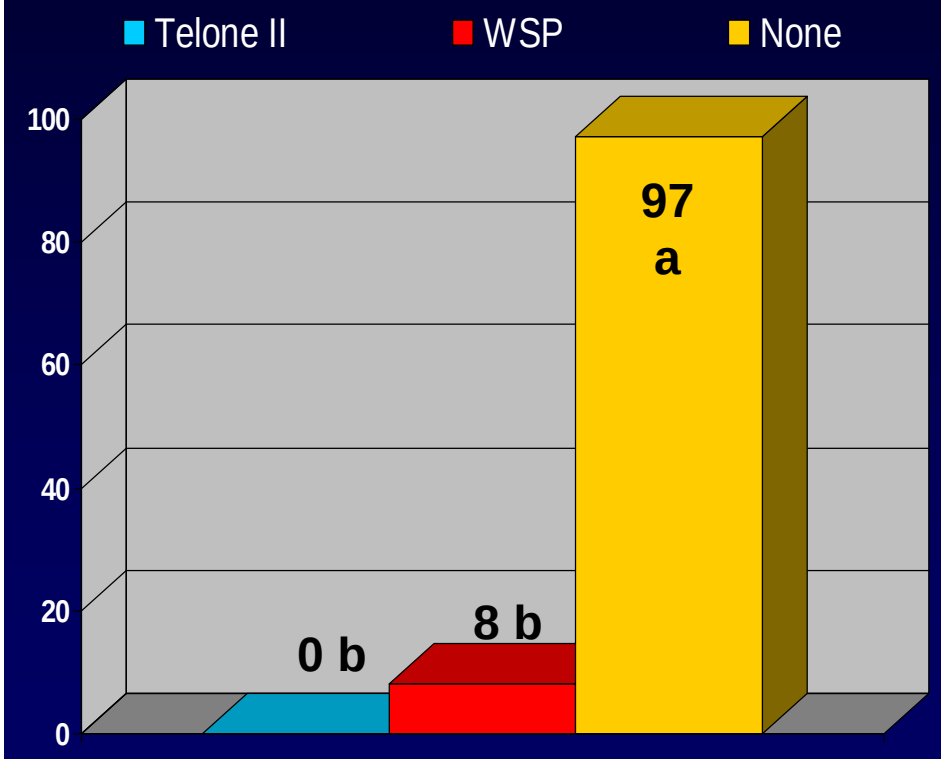
WSP?

1. Potentially new fumigant system being studied.
2. WSP is just a code not a trade name.
3. Data in 2010 looks very good.

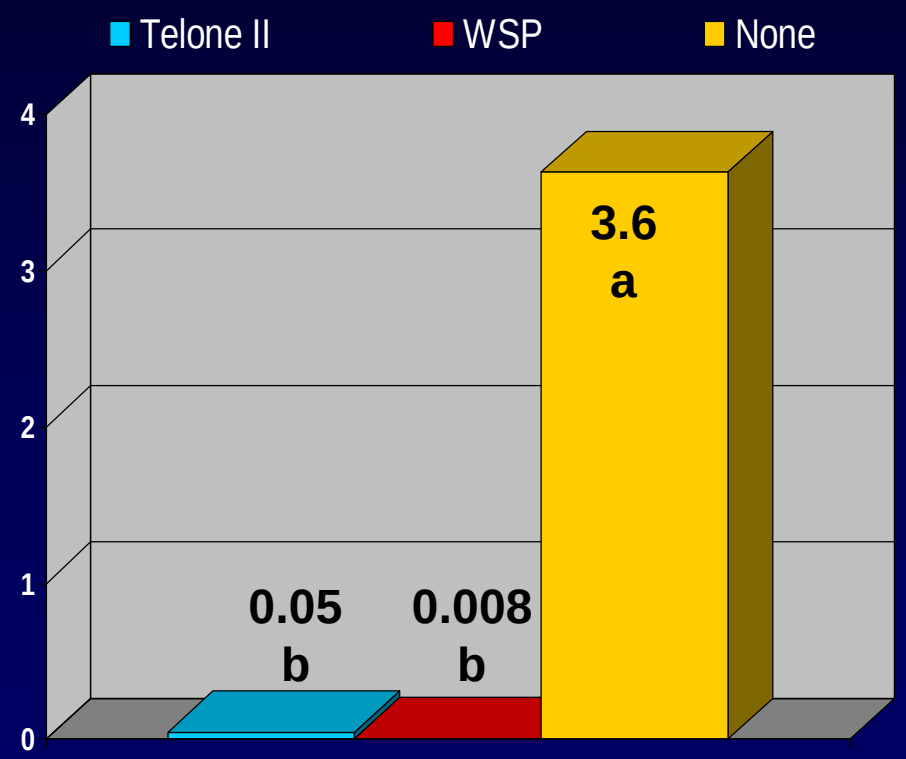
Percent weed control by the WSP + Herbicide Program. 2010



Response of Root Knot nematode to the WSP. Langston, 2010.

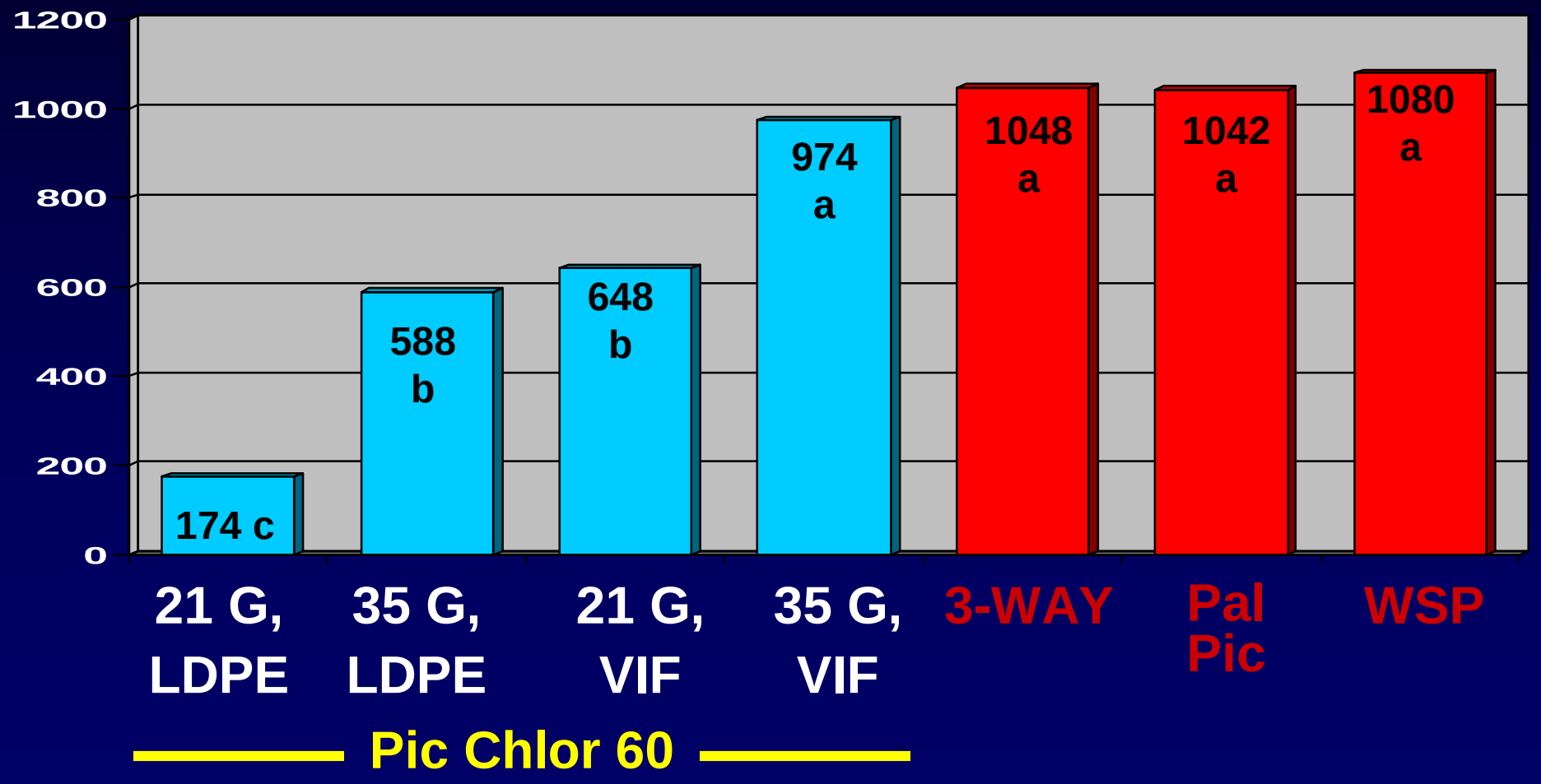


Incidence



Severity

Jumbo pepper yield with a fall fumigation. Four harvests (box/A). TyTy, 2010.



WSP?

4. High barrier (VIF) mulch will be needed.
5. Same application procedures as MB.
6. Minimal buffers in 2012?
7. Three large on farm studies lined up.
8. May be gone in a month or we may be recommending within a year.

Herbicide Program for Tomato and Pepper

Herbicide Program for Pepper:

1. Devrinol applied preplant under mulch. (Command?)
2. Dual Magnum applied topically 7 to 10 d after transplant
3. Select Max without adjuvant as needed (grass <3 inch)

Herbicide Program for Tomato:

1. Devrinol + Dual Magnum preplant under mulch. (Metribuzin?)
2. Sandea POST
3. Select Max without adjuvant as needed (grass <3 inch)

Reflex could be added preplant to both crops once labeled.

Several of these labels may be GA ONLY

Herbicide Preplant Application Method

Several of these labels may be GA ONLY

Comparing MB Alternatives

	PalPic	3-WAY	WSP
1. Drop In replacement	+	-	+
2. Acres w/o refill	-	-	+
3. Smell	- -	+/-	?
4. Nutsedge	+	+/-	+
5. Annual grasses	-	+	-
6. Broadleaf weeds	-	+	-
7. Mulch type	-	+	-
8. Need Herbicides	yes	fall	yes

Fumigant + Mulch + Herbicides Expense

MB =	$1276
3-WAY =	$900
Paladin Pic =	$1080
WSP =	$921
Pic Chlor 60 (35 G)=	$1133
Pic Chlor 60 (21 G)=	$877

Cost per acre land assuming treating 53% of the land area.

Questions?