

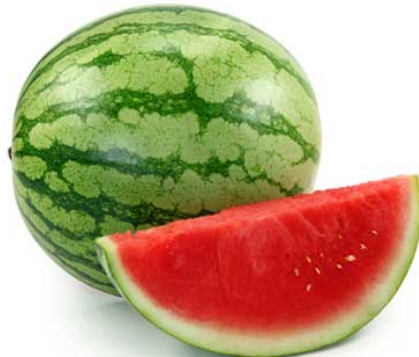
Weed Control in Vine Crops: Consider All Your Options

**Mark VanGessel, Barb Scott,
and Quintin Johnson**



Topics

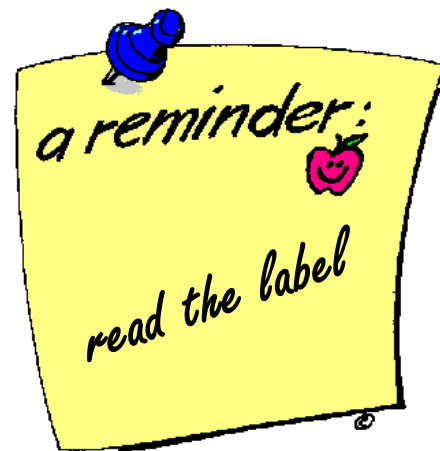
- Pumpkins with rye cover crops
- Watermelon Plastic culture
 - Application timing for row middles



Reminders



- Read the label !!
 - Do Not Rely on Someone Else to Tell You What Is In the Label
 - *Pesticide label is a legal document*
 - Changes may not be publicized
- Must be labeled for the crop
- Directions for use (how, where, when)
- PHI (pre-harvest interval)
- REI (re-entry interval)



Pumpkins

- Increasing acres producing pumpkins on rye mulch
- Still many questions on weed control
 - How much weed control does the rye provide?
 - Does mulch influence herbicide performance?





Effect of Cover Crop For Weed Control Requires Lots of Rye Biomass





M/M

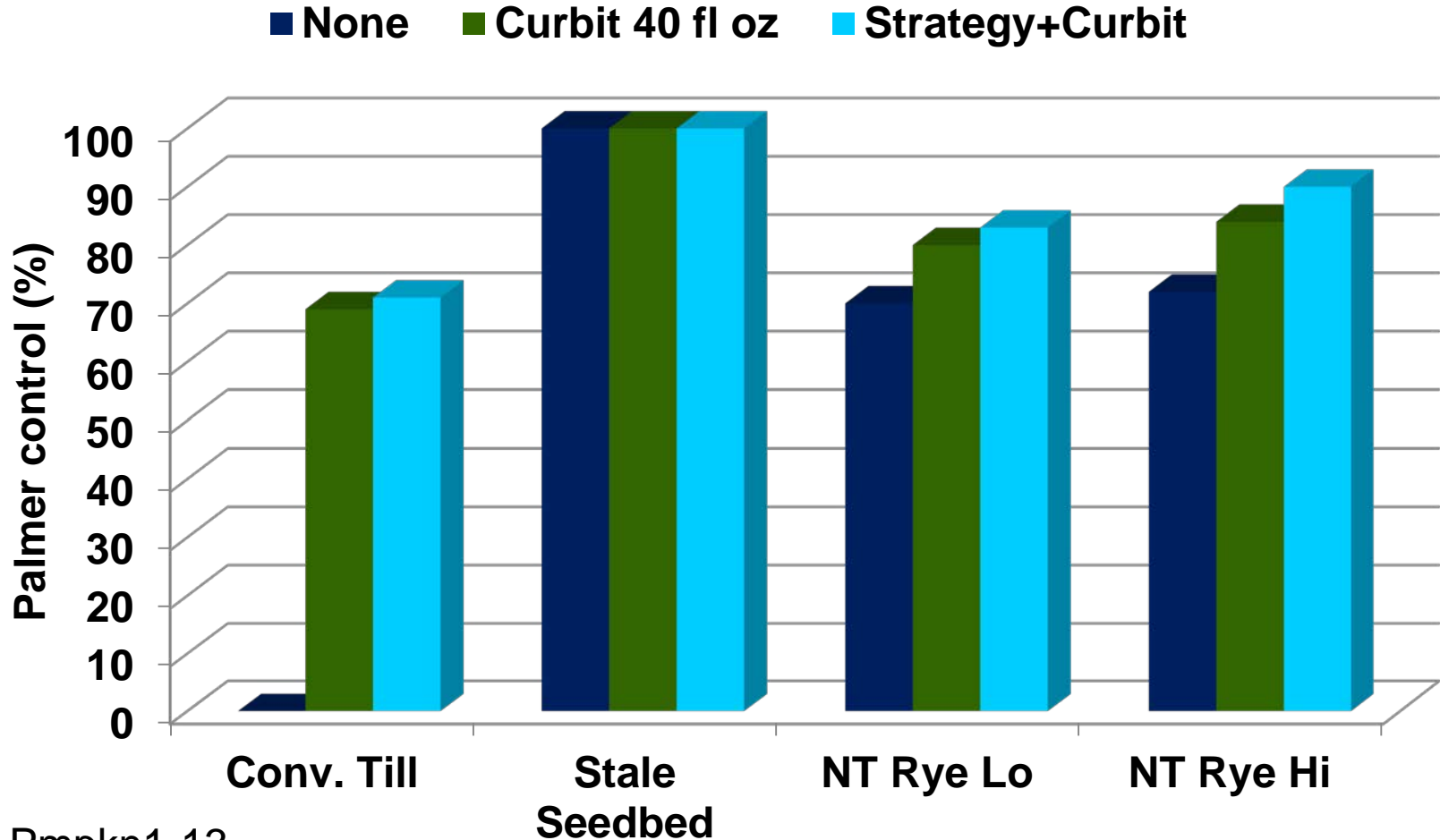
- Rye seeded in the fall at 2 bu/A
 - + spring N (50 or 80 lbs N)
 - Sprayed with glyphosate ~ 14 days preplant
 - Rye rolled preplant
- Stale seedbed
 - Glyphosate in March
 - Roto-tilled and cultipacked 3 – 4 wks preplant
 - Non-selective herbicide at planting
- Conventional tillage
 - Glyphosate in March
 - Roto-tilled and cultipacked at planting

M/M

- Hand-seeded 'Magician'
- Sprayed herbicide treatments
 - Untreated
 - Curbit 40 fl oz/A
 - Strategy + Curbit
 - = Curbit at 40 fl oz/A Command at 8 fl oz/A
- 4 WAP broadleaf weeds treated with hand-held hooded sprayer Aim at 2 fl oz/A
- Drip irrigation
- Strip plot with 4 reps

Cultural Practices and Herbicides

Palmer amaranth control

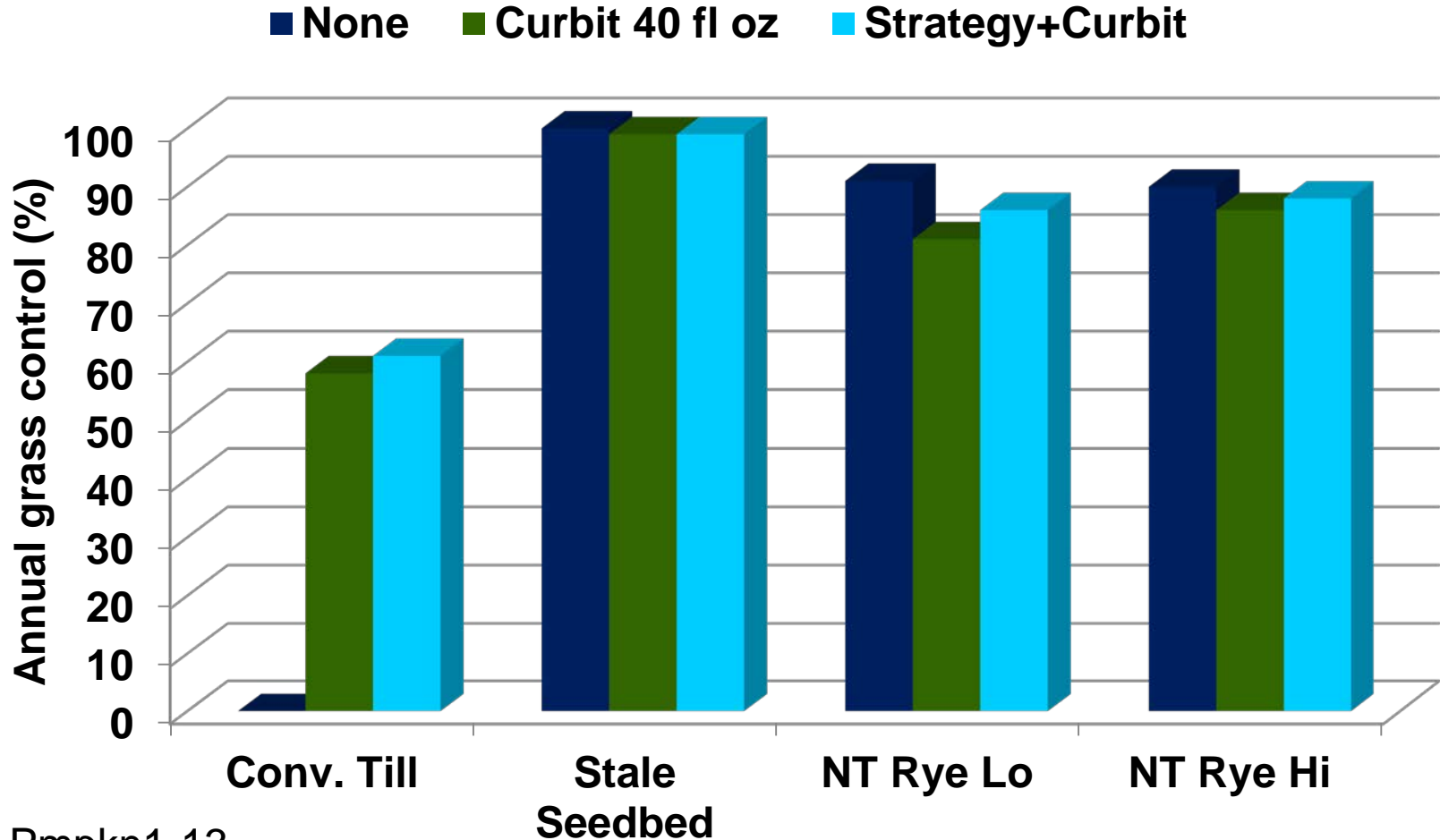


Pmpkn1-13
4 WAP

Isd= 7

Cultural Practices and Herbicides

large crabgrass + giant foxtail control

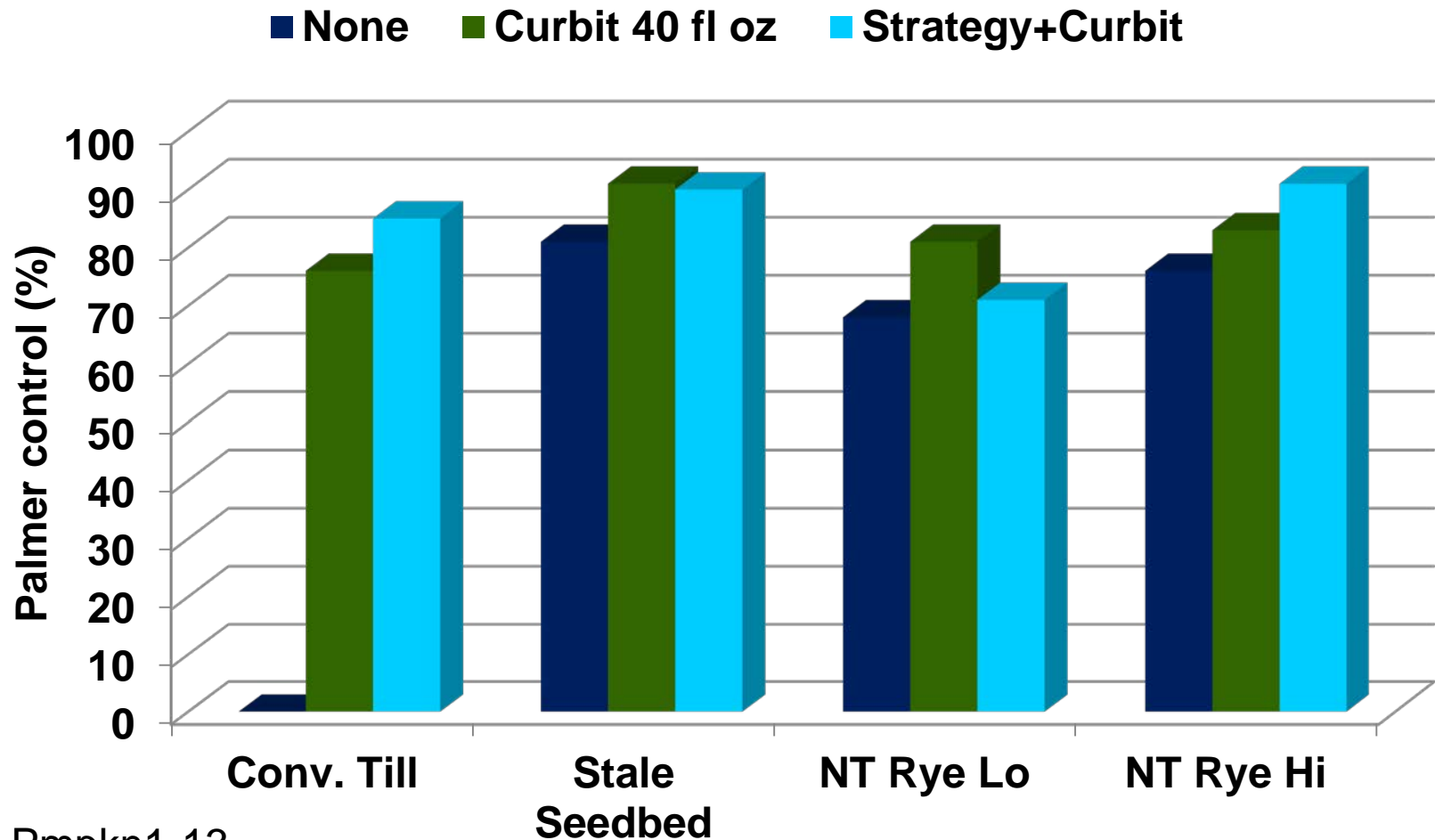


Pmpkn1-13
4 WAP

Isd= 14

Cultural Practices and Herbicides

Palmer amaranth control

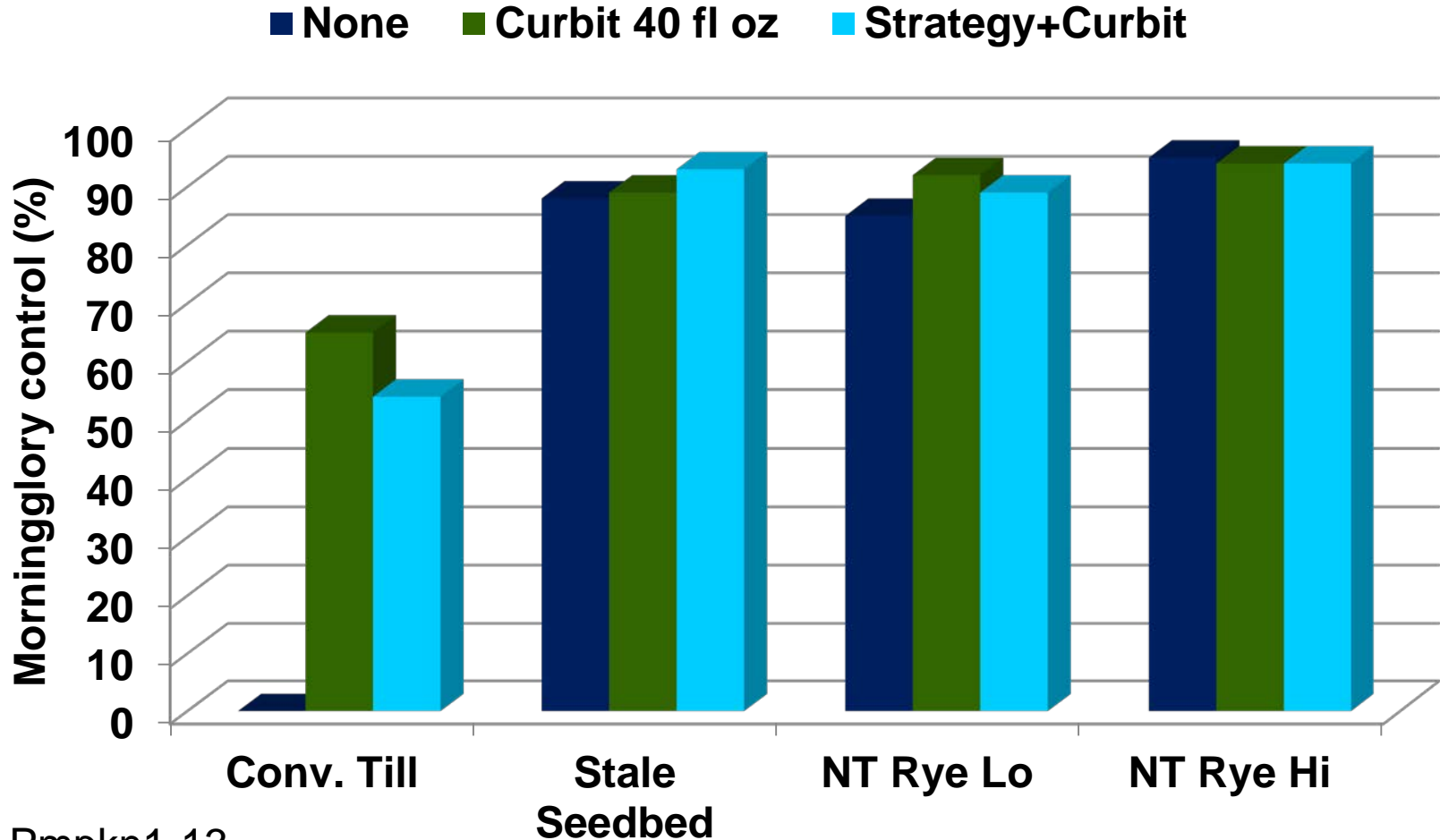


Pmpkn1-13
Pre-harvest

Isd= 23

Cultural Practices and Herbicides

morningglory control

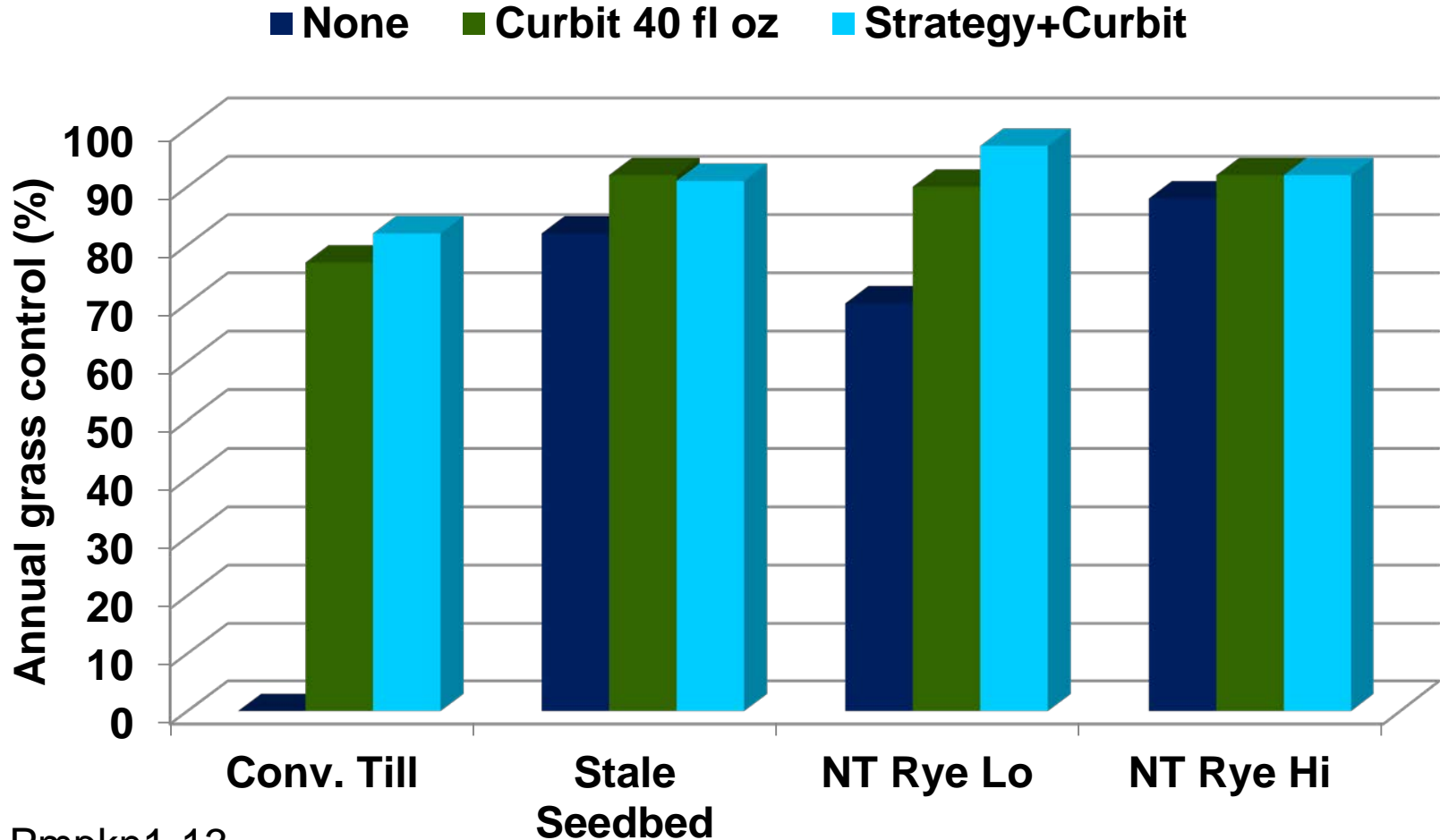


Pmpkn1-13
Pre-harvest

Isd= 11

Cultural Practices and Herbicides

large crabgrass + giant foxtail control

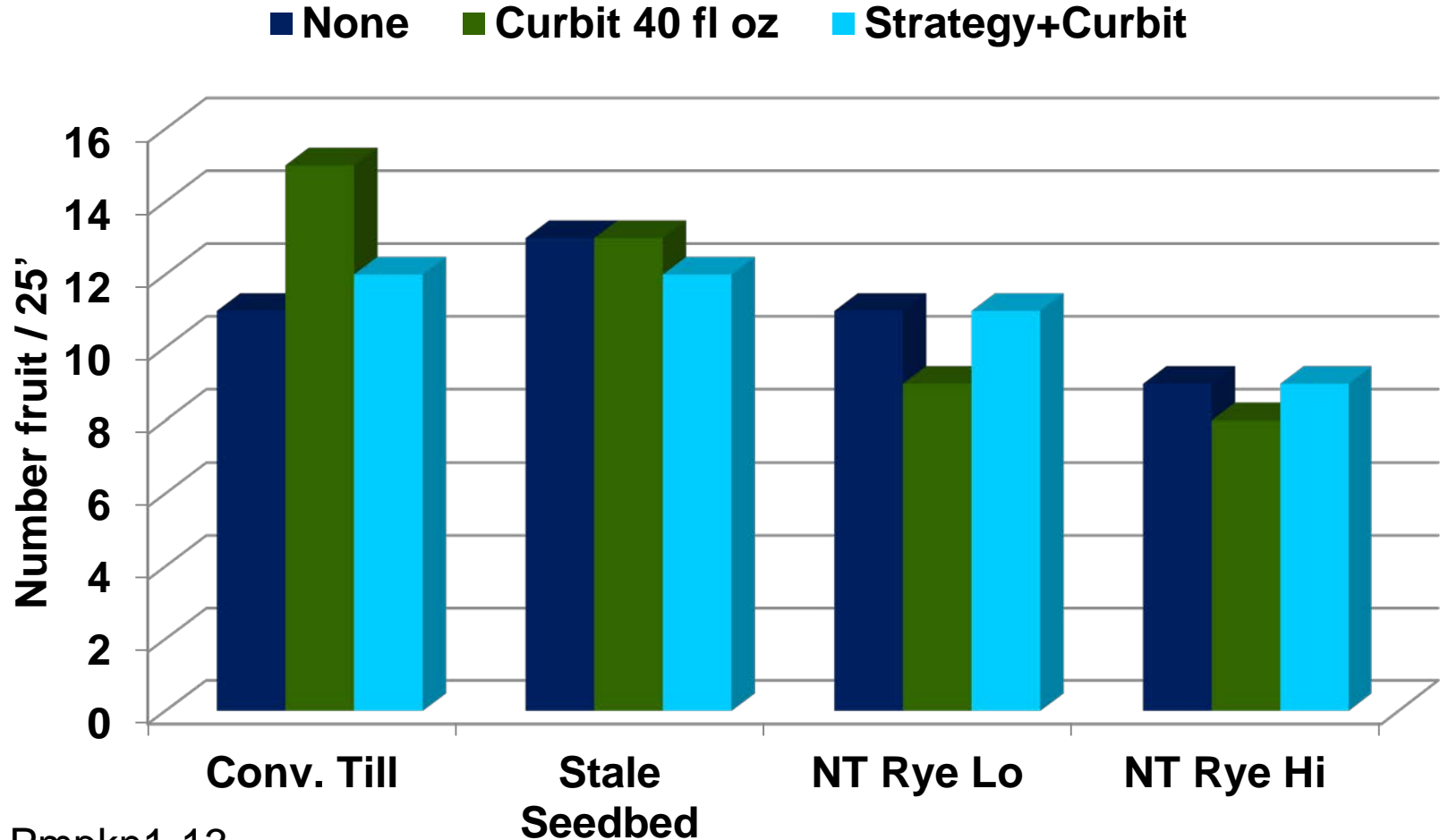


Pmpkn1-13
Pre-harvest

Isd= 7

Cultural Practices and Herbicides

Yield – total fruit per plot



Pmpkn1-13
Pre-harvest

Isd= 0.5

Rye Mulch

Advantages

- Cleaner fruit
 - Disease
 - Dirt
- Moisture conservation
- Weed control
- Soil health

Disadvantage

- Planting
- Additional management
 - Fertility CC
 - Fertility crop
- Pre-plant moisture loss
- Cultivation

Stale Seedbed

Advantages

- Doesn't limit rotations
- Compatible with herbicides and cultivation

Disadvantages

- Additional tillage
- Exposed soils
- Care to limit soil disturbance

Scout 4 WAP

- Decision to control emerged weeds
- Cultivation
- POST herbicide
 - Sandea for selected broadleaves
 - Poast or Select Max for grasses



**Sandea
POST**



NO Sandea POST





Watermelon Herbicides

PROWL H₂O
herbicide

Novasource[®]
Tessenderlo Group

Sinbar[®]
Agricultural Herbicide

CURBIT EC
HERBICIDE

Sandea[®]
Herbicide

Prefar[®] 4-E
Selective Herbicide

Dual Magnum[®]

CHATEAU[®]
HERBICIDE SW

STRATEGY

COMMAND[®]
SME HERBICIDE

Poast[®]
herbicide

SELECTMAX[®]
HERBICIDE
WITH INSIDE TECHNOLOGY™

Getting the Most Out of the Herbicides

- Watermelon products have residual activity
- None are “broad-spectrum”
 - all have serious “holes”
- Under plastic
 - Dual, Prefar, Sinbar, Sandea



Benefit of Later Application on Residual Activity

Grass herbicide

Dual, Prowl, Strategy

Broadleaf herbicide

Sandea, **Sinbar**, **Chateau**

Non-selective

Four weeks of residual control

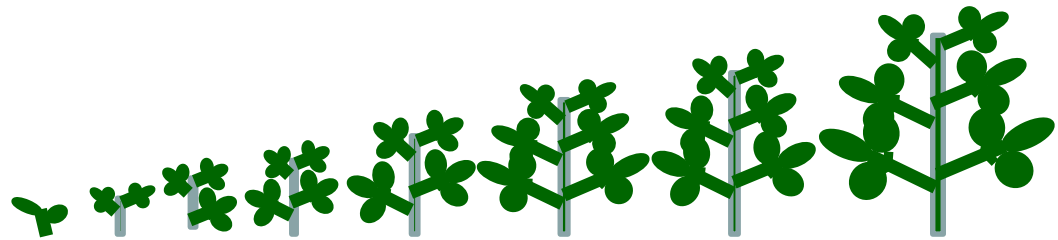
Application



Lay
plastic



Transplanting

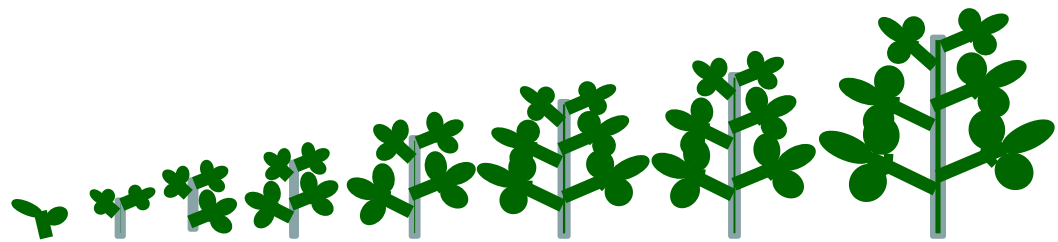


Benefit of Later Application on Residual Activity

Grass herbicide
Dual, Prowl, Strategy
Broadleaf herbicide
Sanda, Sinbar
Non-selective

Four weeks of residual control

Application



Lay
plastic



Transplanting

Benefit of Later Application on Residual Activity

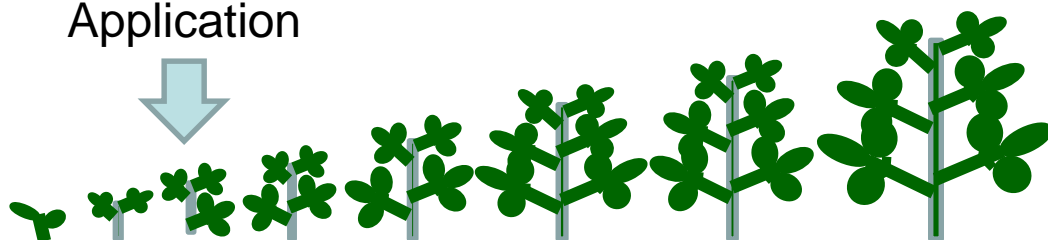
Grass herbicide
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Four weeks of residual control

Application

Lay
plastic

Transplanting



Summary

- Stale-seed bed may have a fit in some situations
 - Fits well with an integrated approach to weed management
- Rye cover crop can be beneficial for weeds but requires large amounts of rye residue and careful field selection
 - Not compatible with mechanical weed control
- If not satisfied with weed control in plasticulture, re-evaluate timing of application



Questions ??

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MELNS-07 TXX. 7
Untreated Check.....