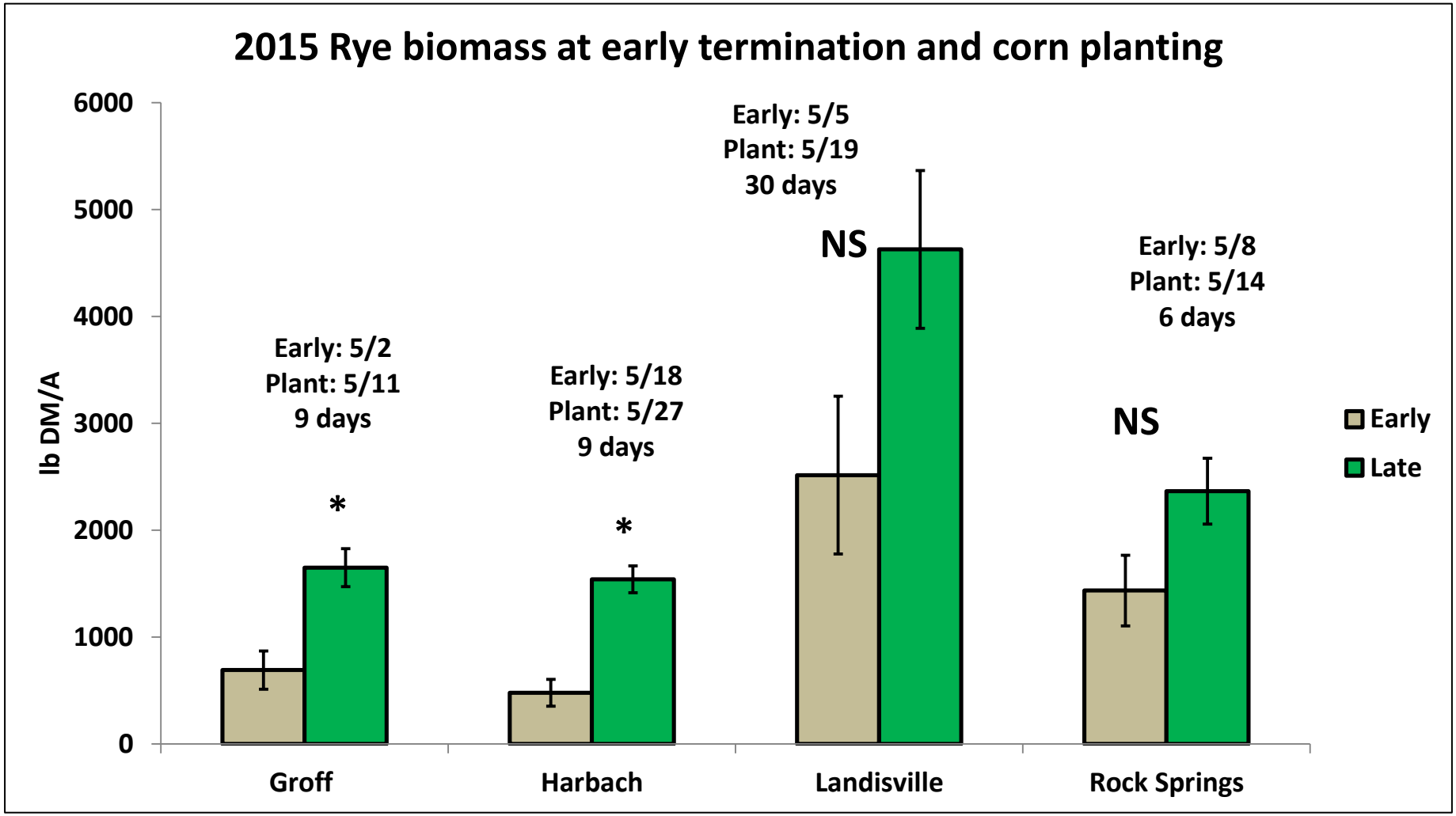
Planting Green Project Update

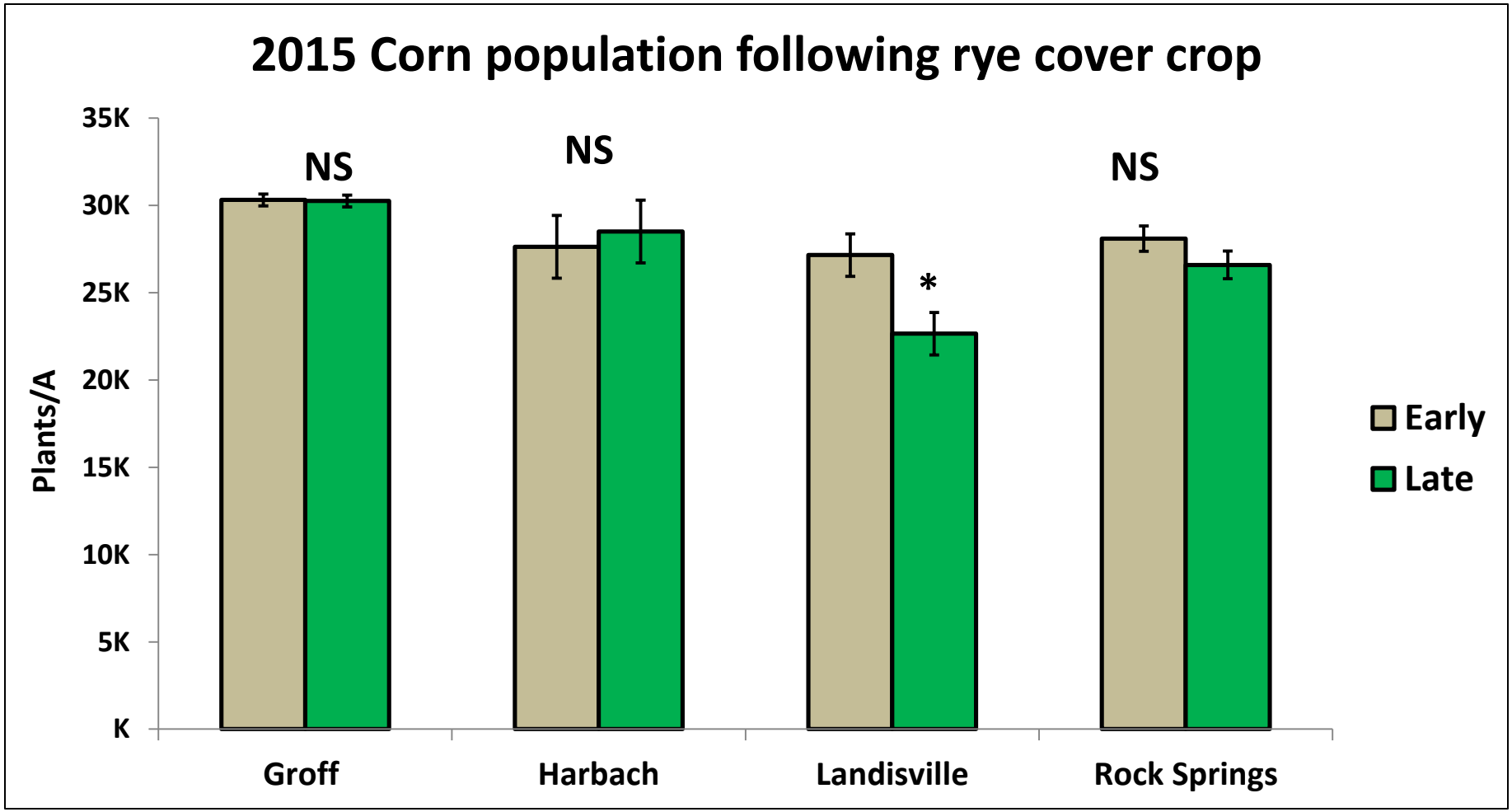
For more information contact

Heidi Myer

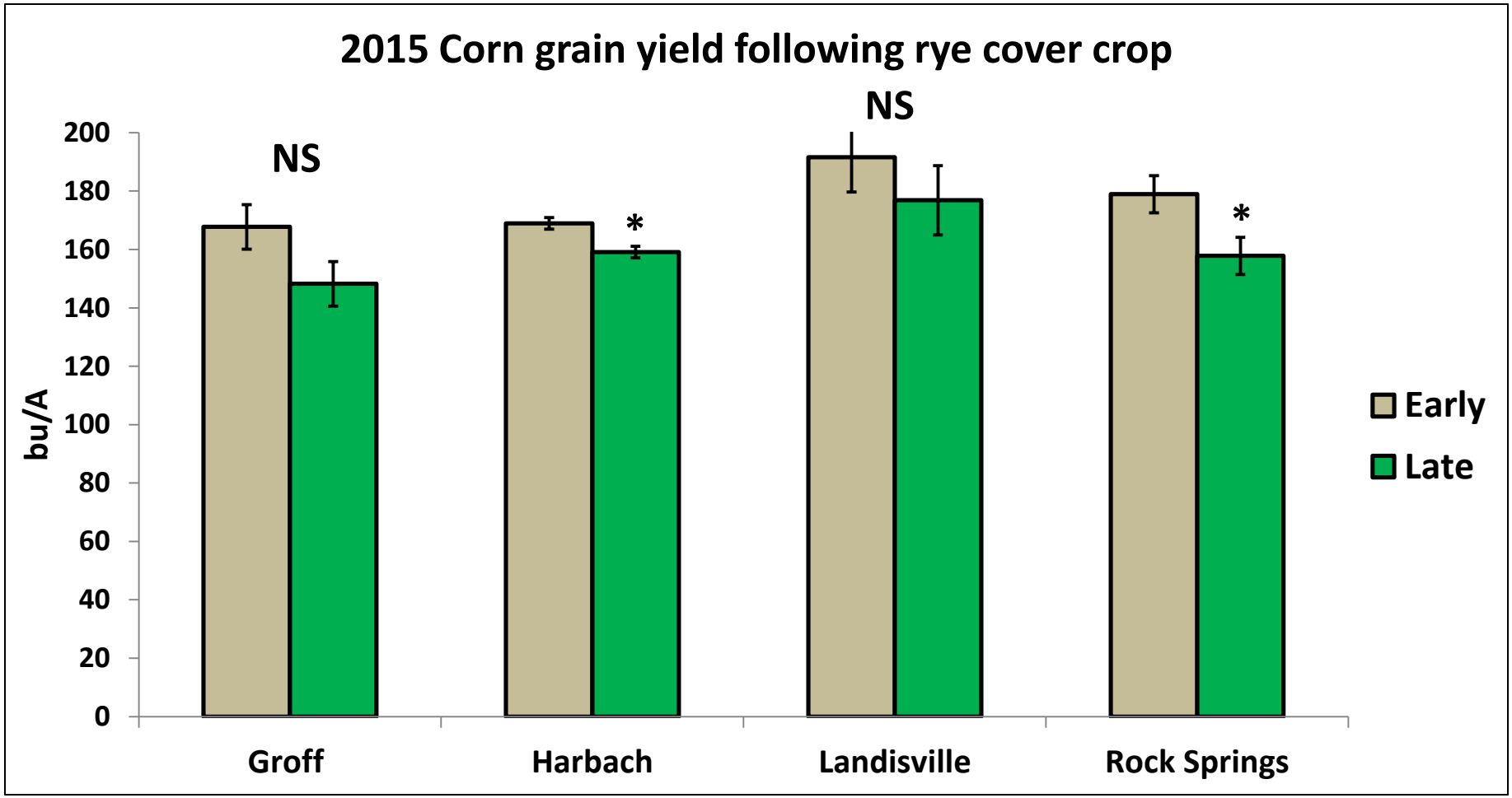
hxm5183@psu.edu



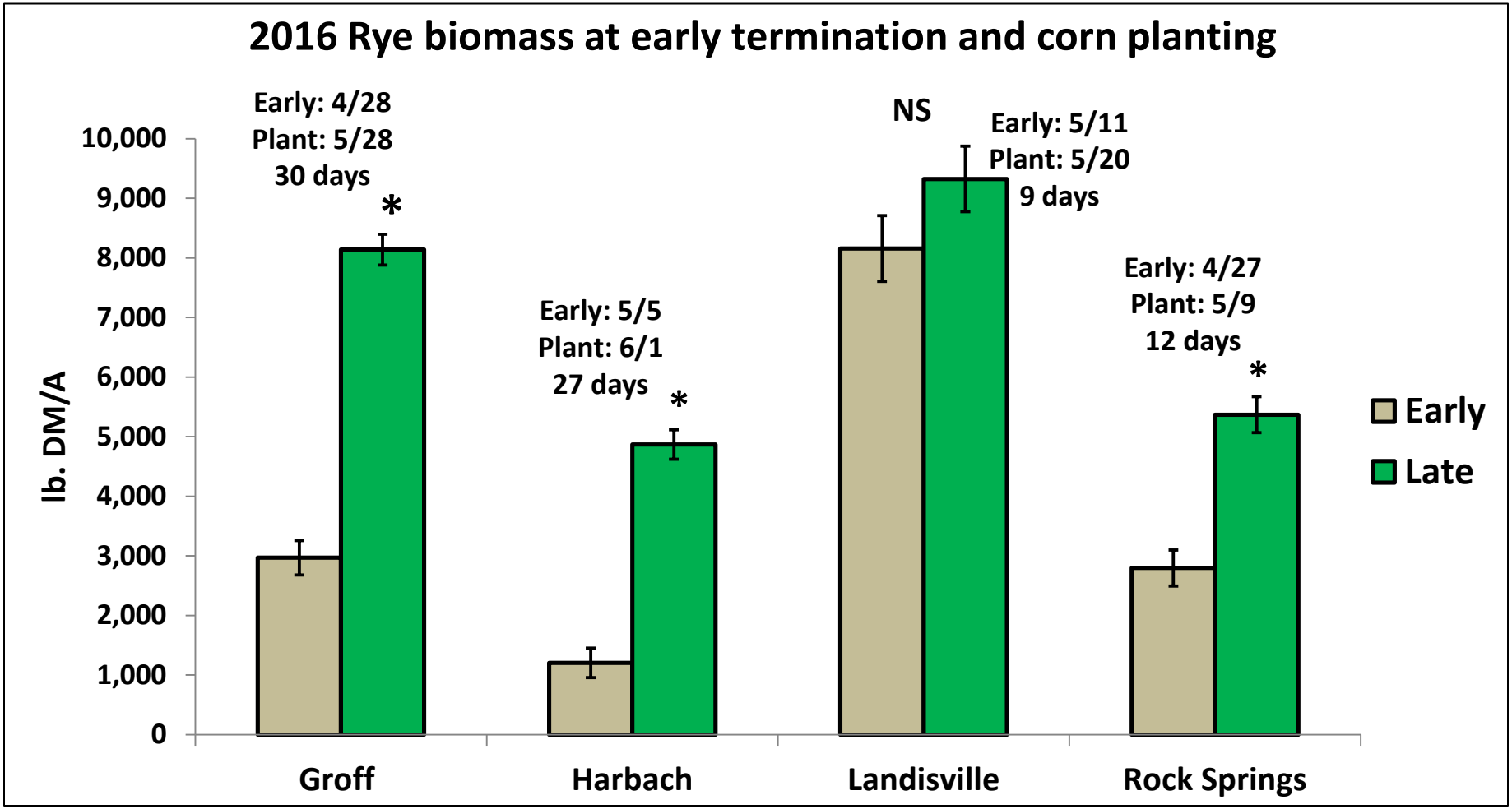
- Delaying rye termination allows for more biomass accumulation



- Effects on corn population are mixed
- Sites where population was reduced with planting green experienced very dry soils at planting (ex. Rock Springs avg. 15% moisture) and difficulty achieving good planting depth

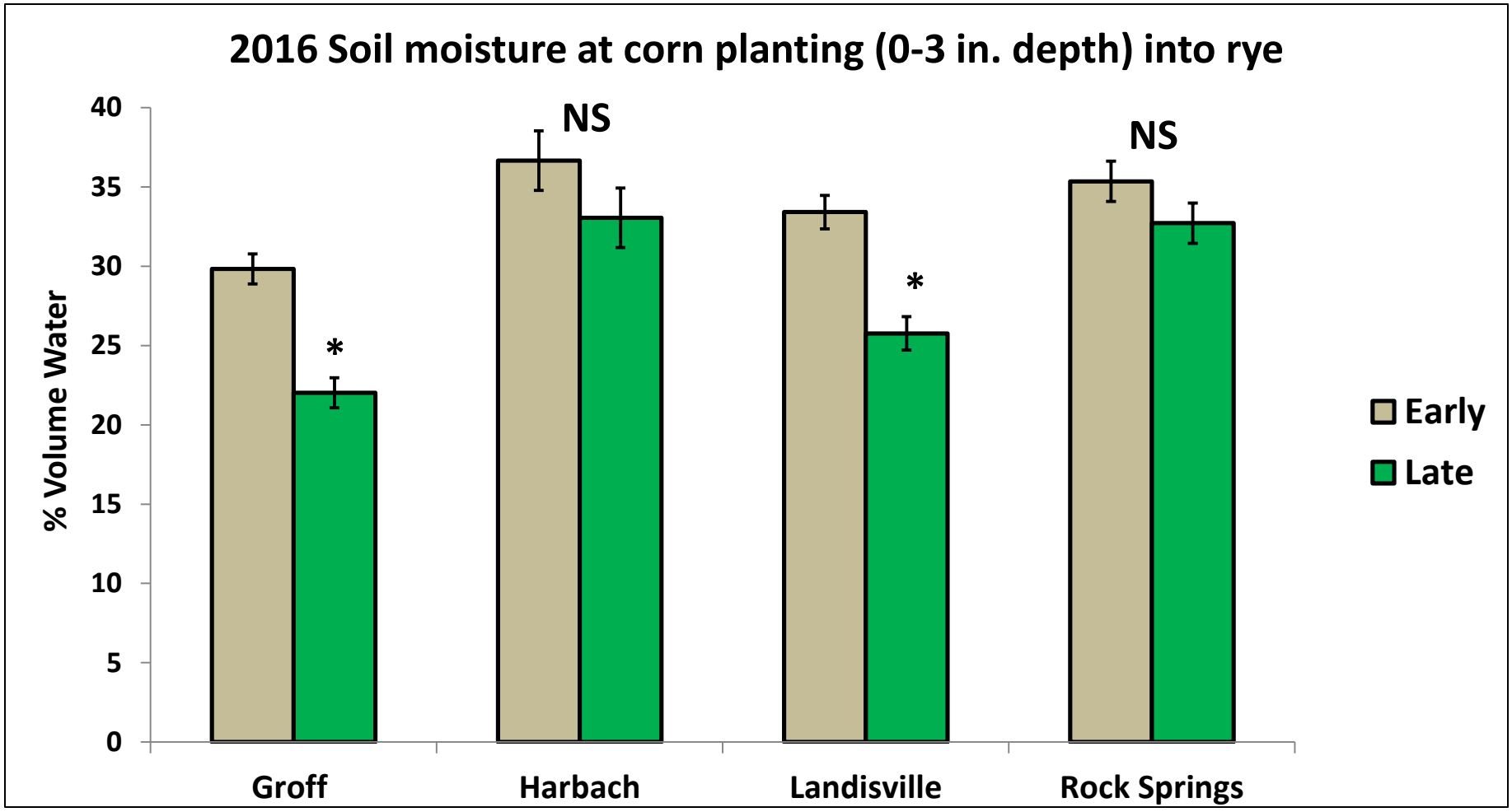


- Corn yield was numerically lower at all sites, but only significant at 50% of sites
- Reduced yield could be due to reduced populations, insect damage, or nitrogen tie-up (immobilization) by late-terminated rye

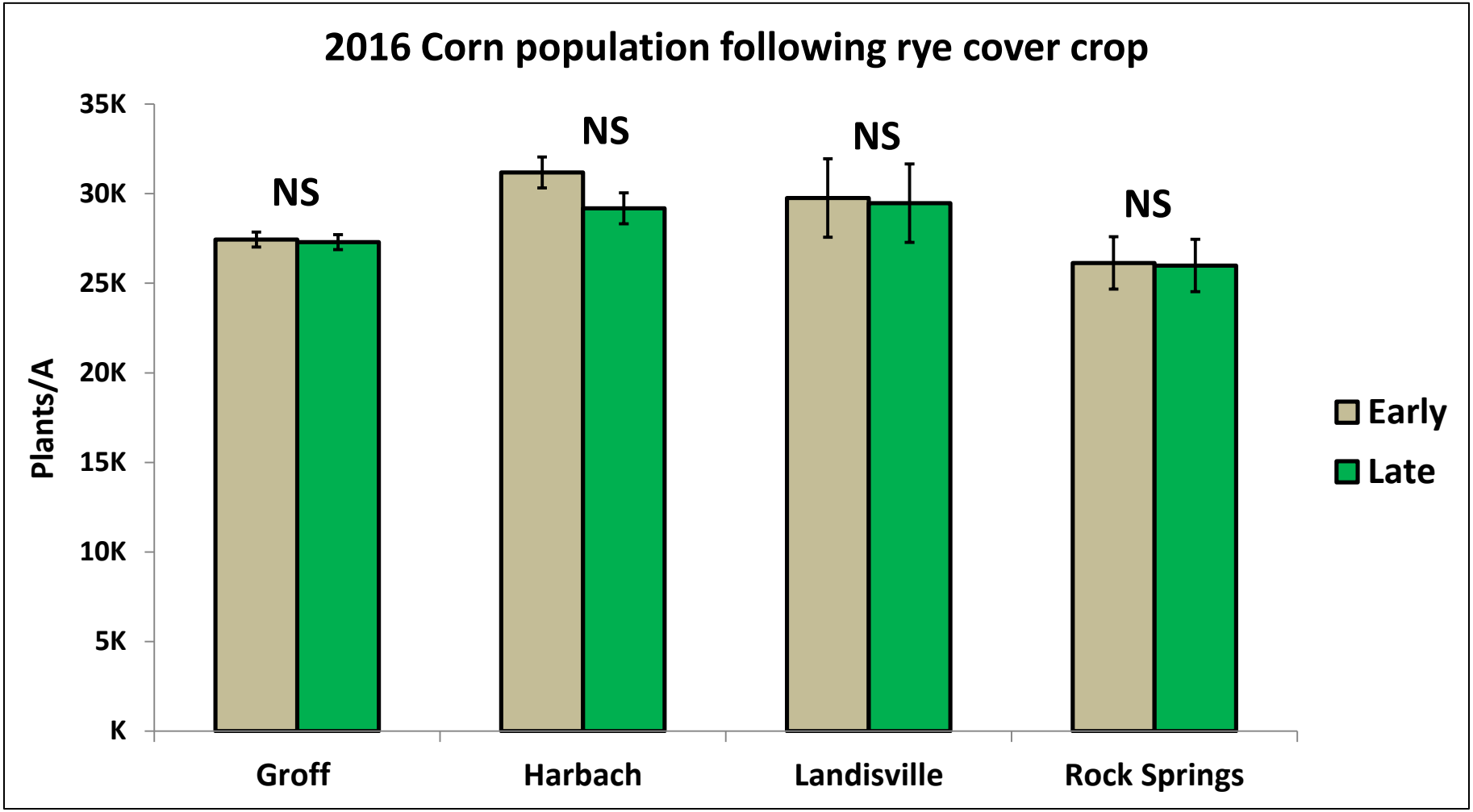


- With 2-week delay in cover crop termination with planting green (typical practice), rye biomass approximately doubles (see Rock Springs site)
- Longer delay between termination times = more biomass accumulation

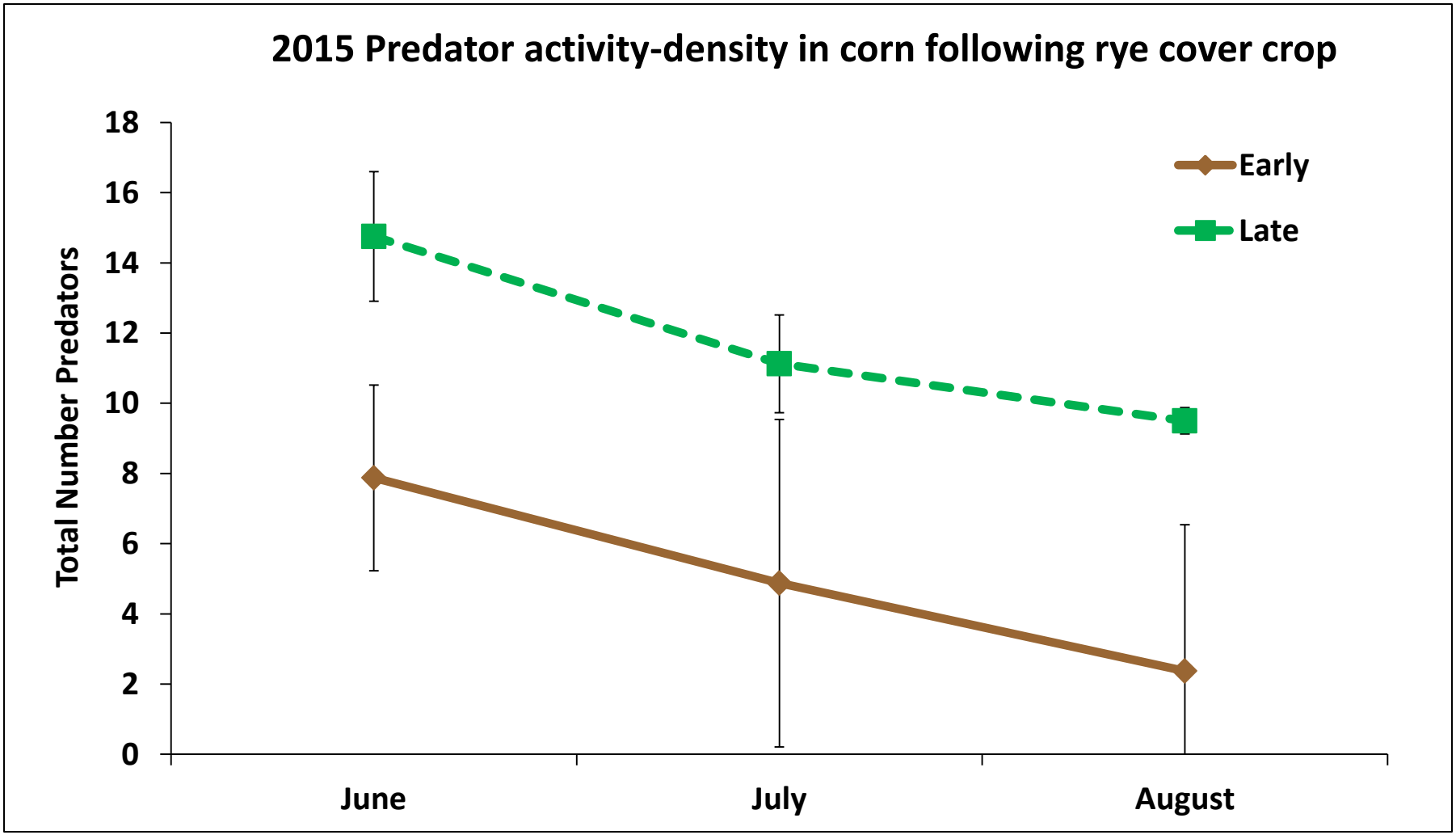
*Note: abnormally long delays at Groff and Harbach sites were due to heavy rains in May



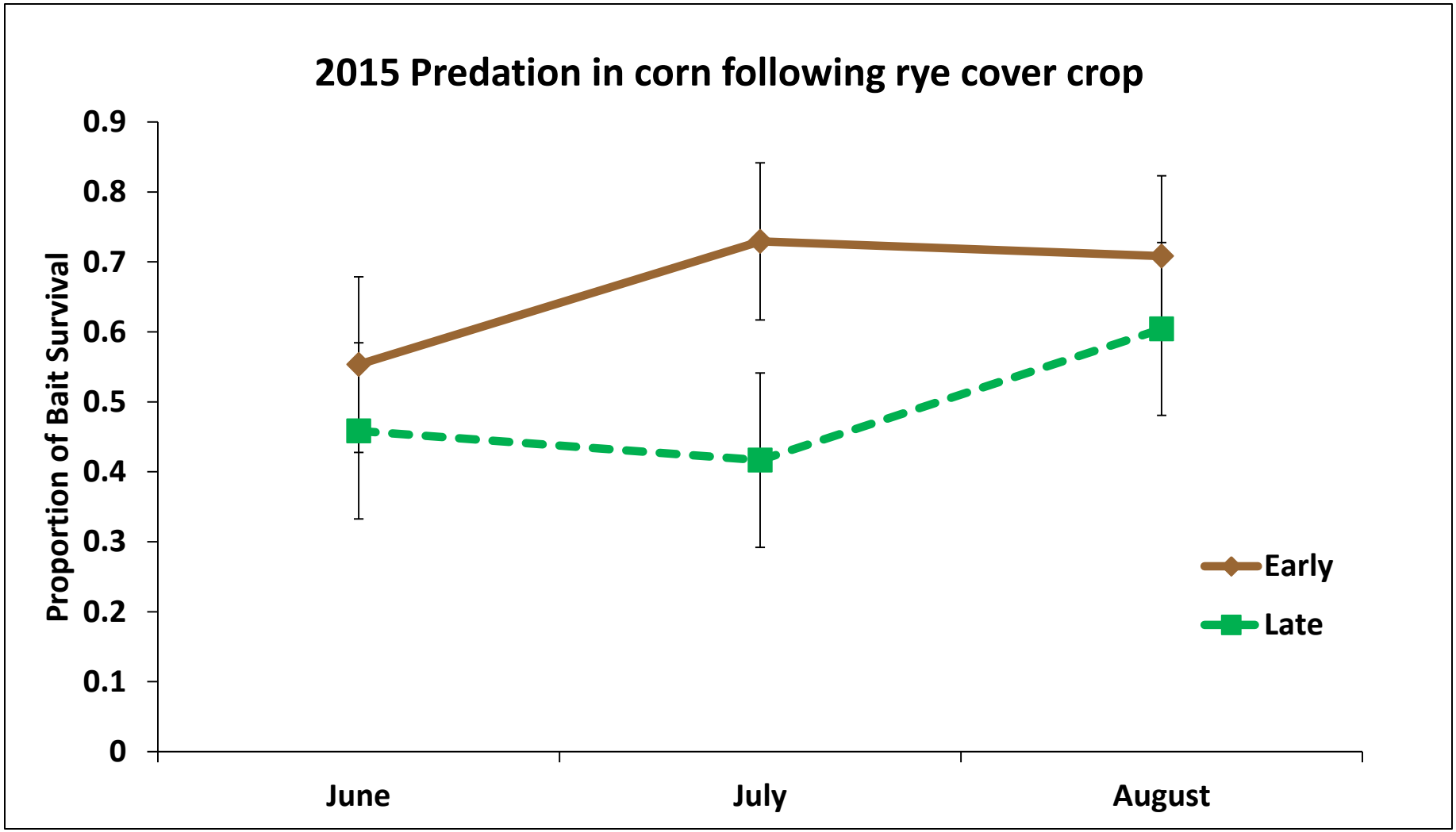
- In a wet spring (typical for this region), planting green can use excess soil moisture, improving cash crop planting conditions
- In a dry spring (such as 2015), soil drying with planting green can be detrimental



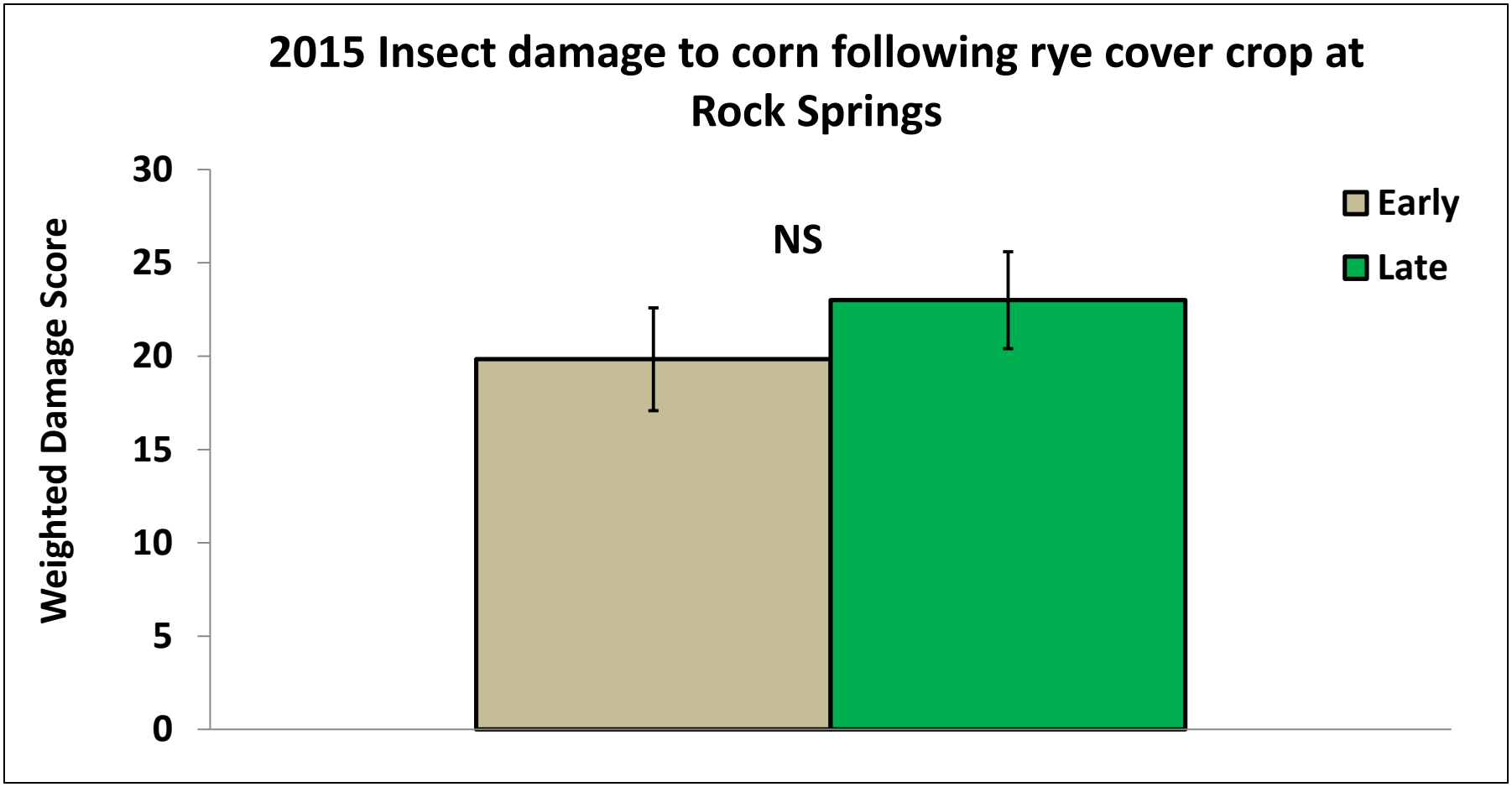
- Ample spring moisture in 2016 provided good planting and establishment conditions in both “planted brown” and planted green treatments



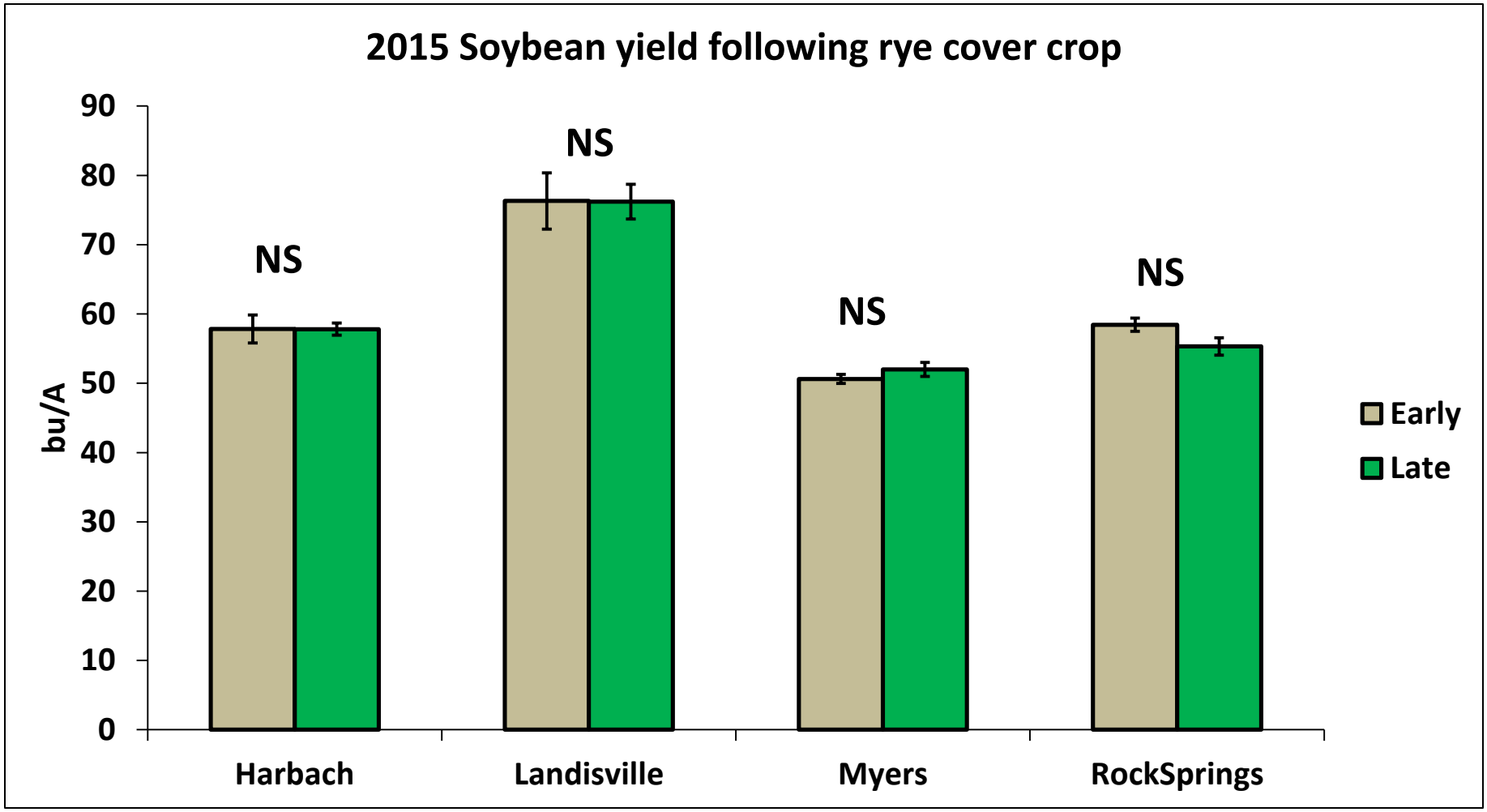
- Higher “beneficial bug” populations were counted throughout the summer in corn planted into green rye.
- More predators (“beneficial bugs”) implies that more pests (slugs, black cutworm, armyworm) will be eaten



- Bait survival (represents pest) was significantly lower in the planted green treatment in July and numerically lower all summer
- Lower bait survival implies fewer pests to damage the cash crop



- Overall pest damage to corn was not different between “planted brown” and planted green treatments



- Soybean populations were typically lower when planted green, but the plants were able to compensate and produce yields that were not different between “planted brown” and planted green treatments

Additional Summary (data not shown)

- Planting green cools soil temperatures throughout the growing season; more biomass=greater effect
- Expect and manage for delayed emergence and ~ 1 week maturity lag when planting green compared to “planting brown” on the same day
- Nitrogen tie-up (immobilization) by rye is likely a concern, some additional N likely needs to be and side-dressed

Planting Green into Hairy Vetch – 2015 Experiences compared with tillage

For more information contact
Sjoerd Duiker
swd10@psu.edu

Vetch biomass increased 500 lbs/A in 4 days!

		Vetch Biomass (lbs/A)	Typical N content (lbs/A)
May 8th	Tillage time	1829	73
May 12th	Planting time	2326	93

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Corn Yields 2015

	Yield (bu/a)
Moldboard/disk/harrow	187 a
Chisel/disk/harrow	211 b
Planted Green	203 b

Used 90 lbs/A Nitrogen fertilizer

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