



2020 Pasture Weed Management Trials Summary

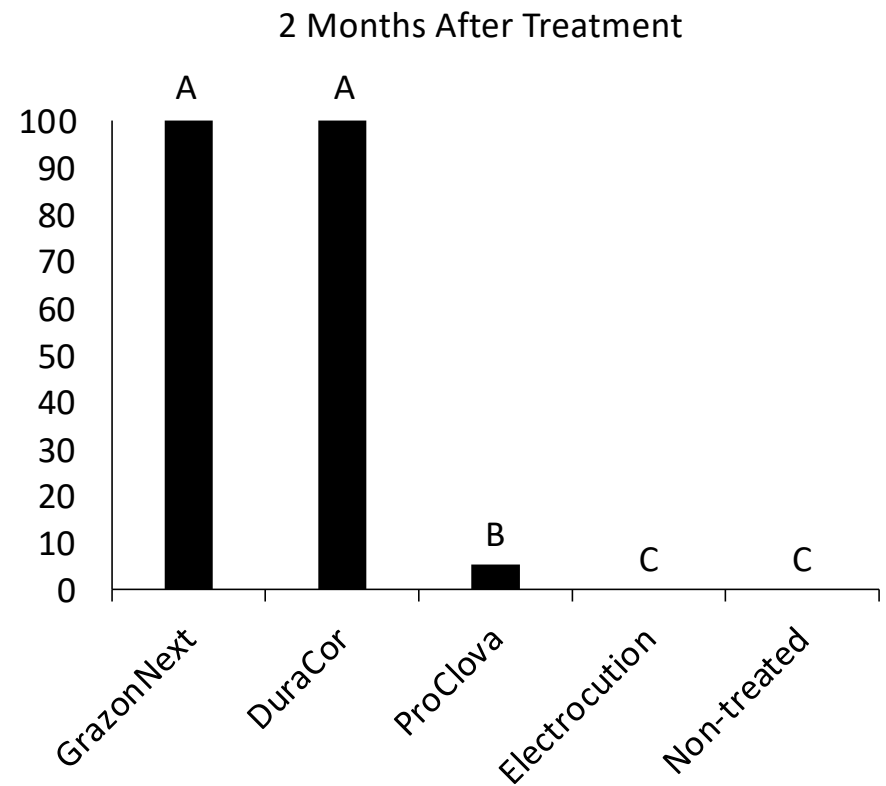
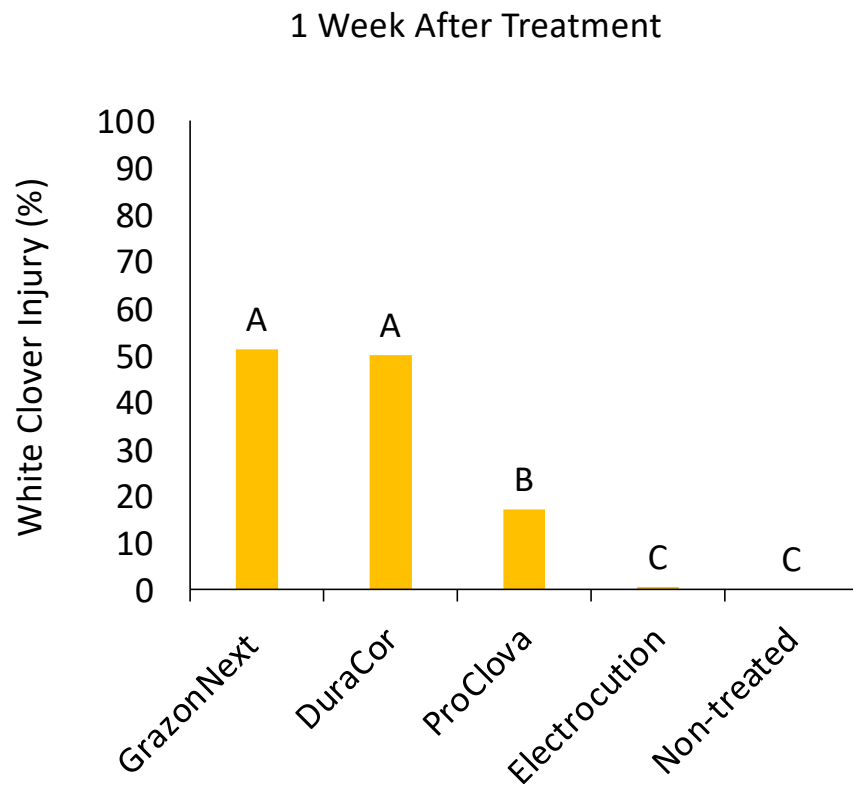
Methodology

- Locations: Hurley, Linneus, Montgomery City, Edgar Springs
- Treatments: DuraCor, GrazonNext, ProClova, electrocution with Weed Zapper™
- Application Timing:
 - Montgomery City: 5/21
 - Linneus: 6/3
 - Hurley: 6/5
 - Edgar Springs: 6/11
- Individual Treatment Plots: ~1/2 acre; each treatment replicated 3 times



Influence of Treatments on White Clover Injury

(summarized across four Missouri locations, 2020)

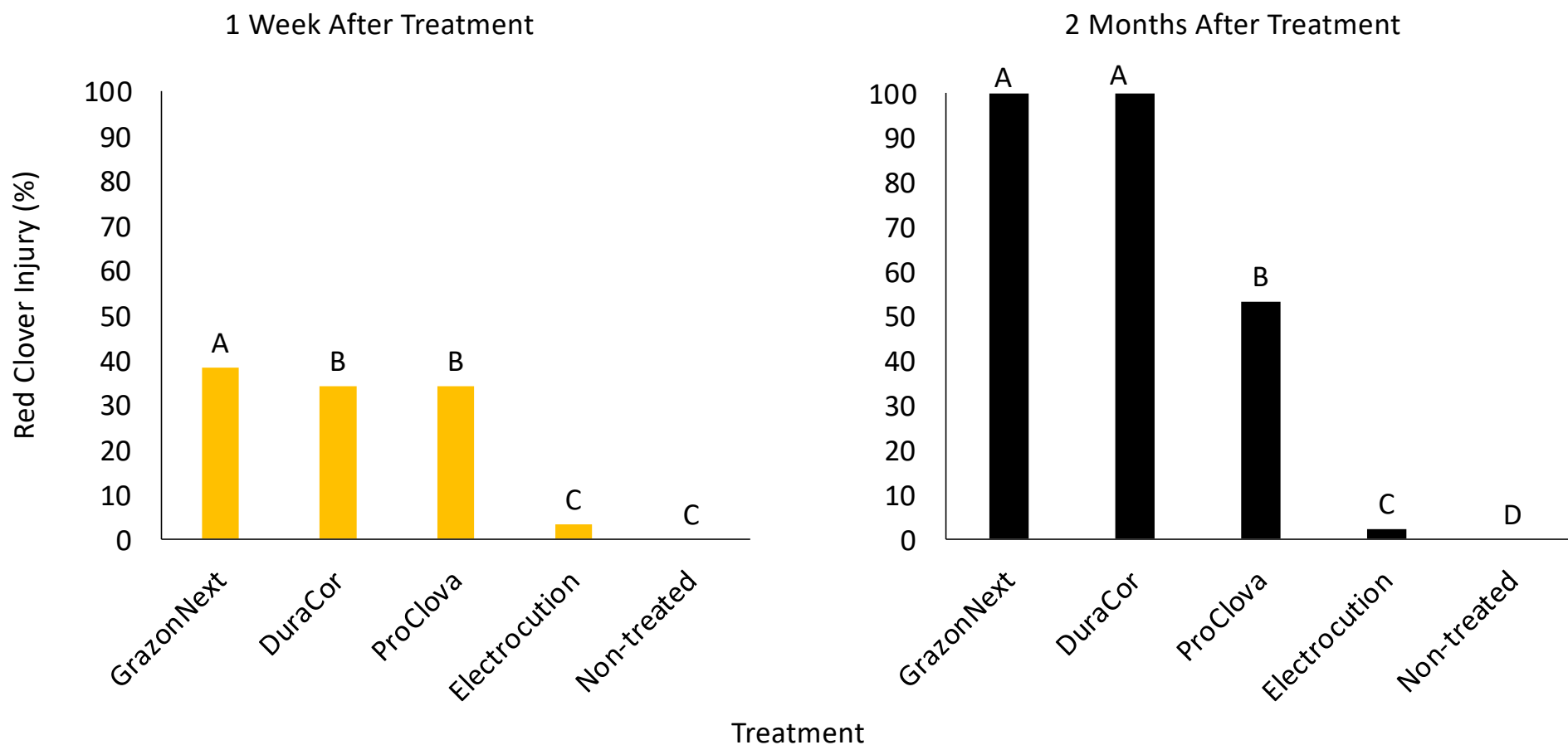


*Bars followed by the same letter are not different, $LSD_{0.05}$

Treatment

Influence of Treatments on Red Clover Injury

(summarized across Linneus and Montgomery City, 2020)



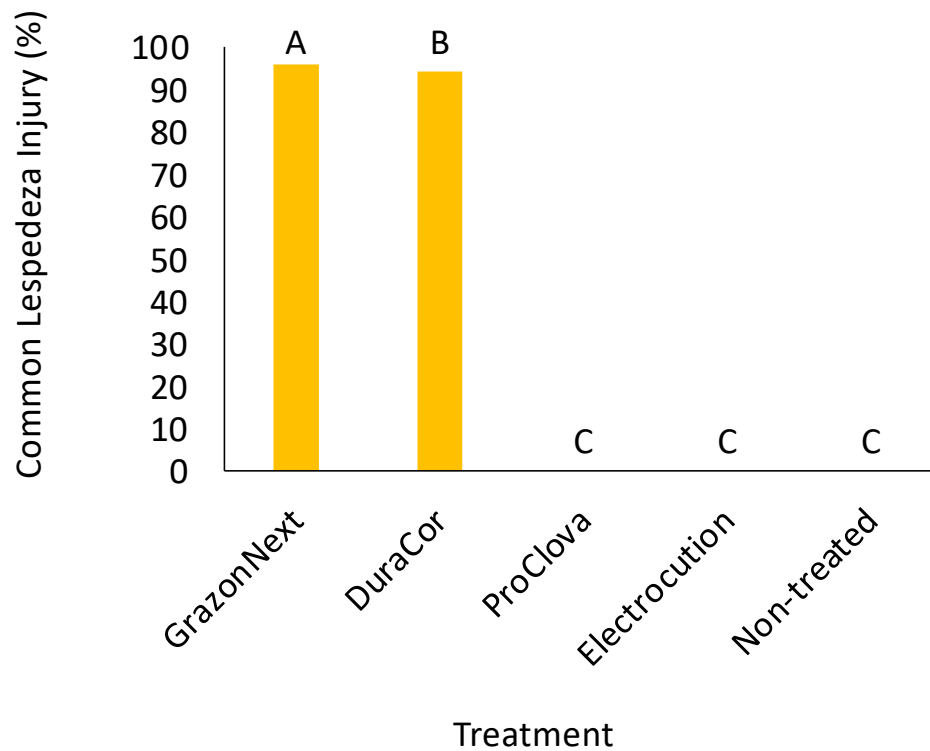
*Bars followed by the same letter are not different, $LSD_{0.05}$

Influence of Treatments on Common Lespedeza

(a.k.a. Japanese Clover)

(summarized across Linneus and Montgomery City, 2020)

*Rating done 3 months after treatment once lespedeza was emerged

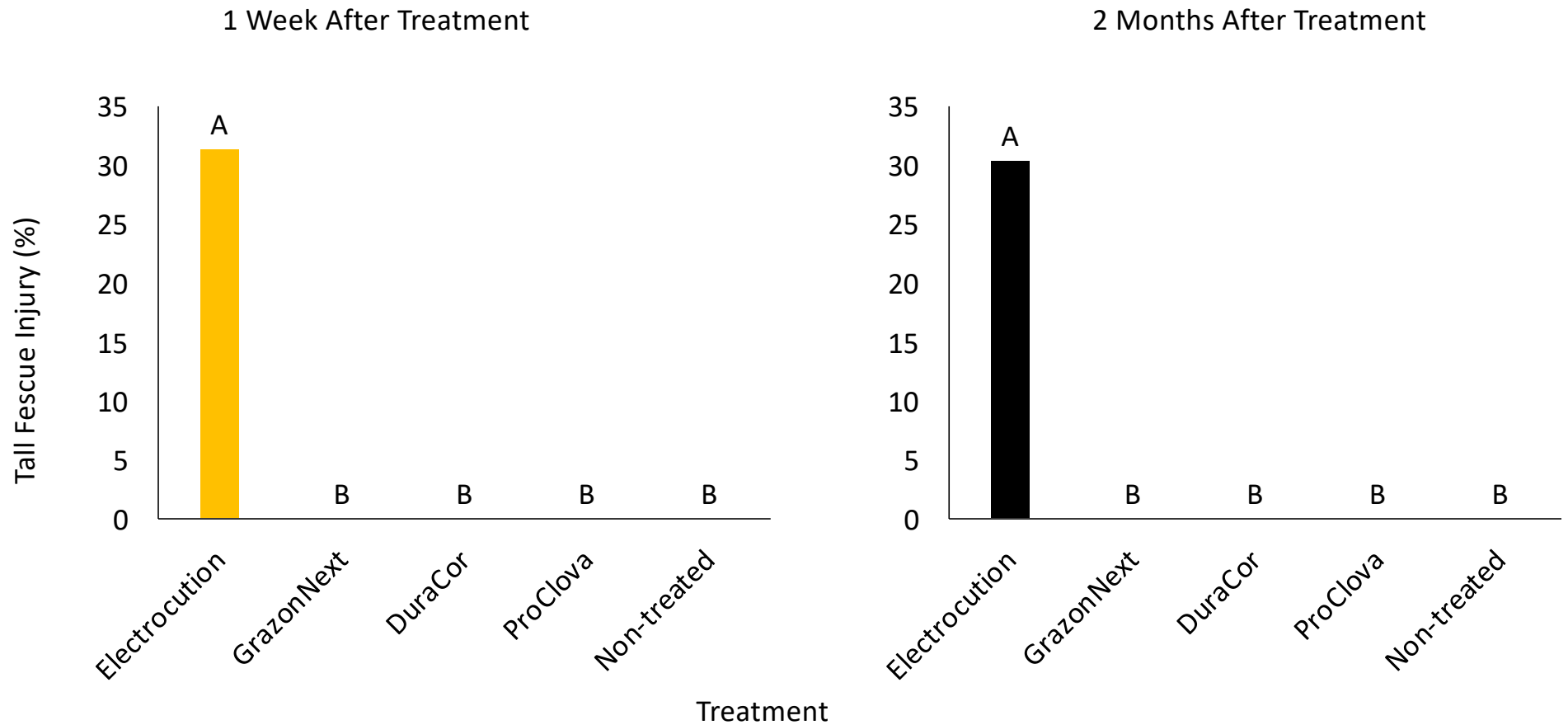


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**Almost all common lespedeza emerged after the applications

Influence of Treatments on Tall Fescue Injury

(summarized across four Missouri locations, 2020)



*Bars followed by the same letter are not different, $LSD_{0.05}$

White Clover Recovery Following ProClova Treatment

GrazonNext



ProClova



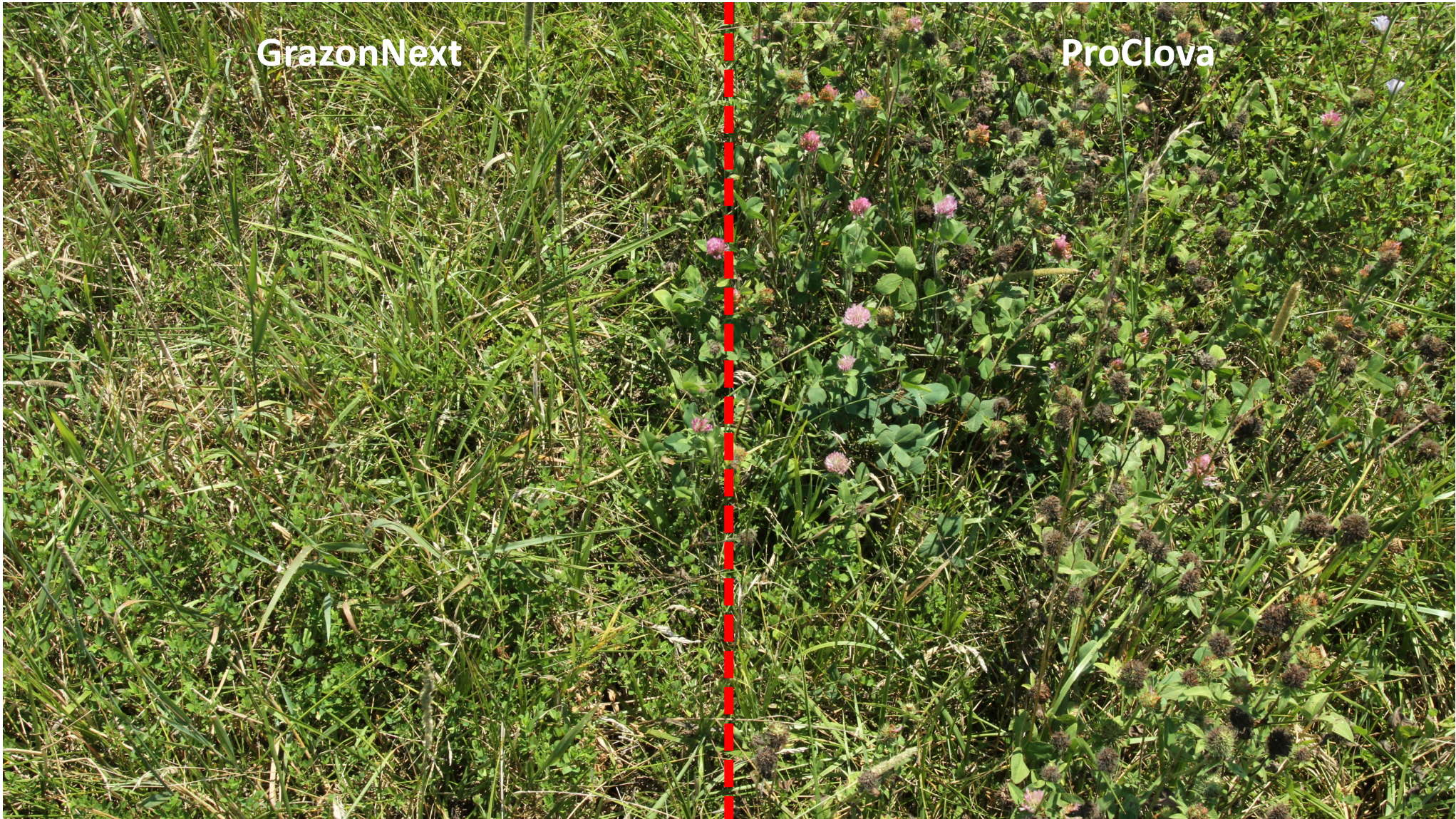
DuraCor



*photos taken 2 months after treatment

GrazonNext

ProClova



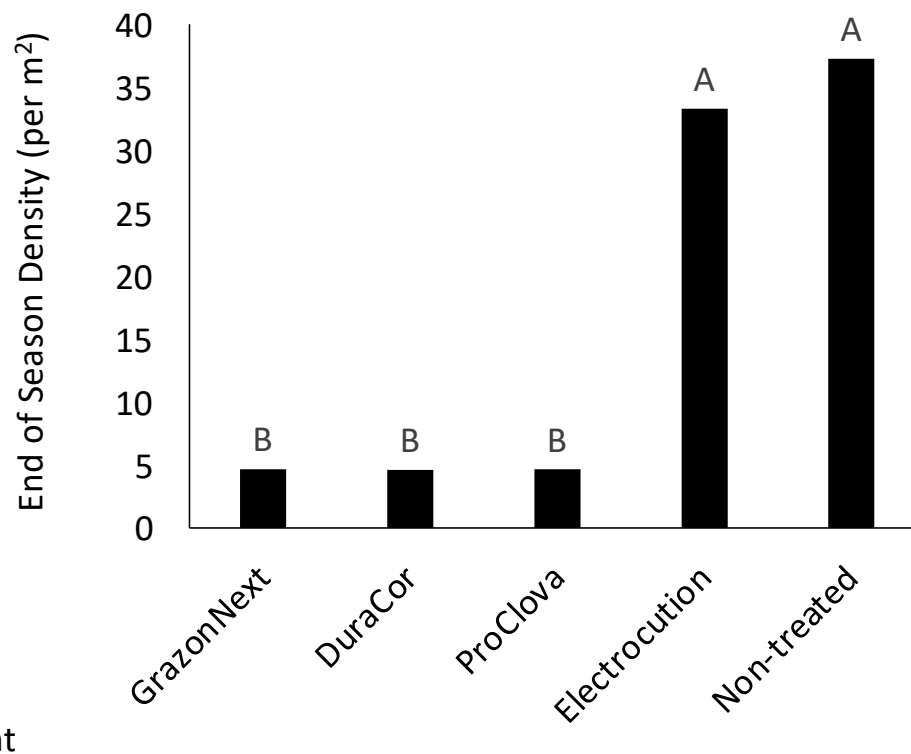
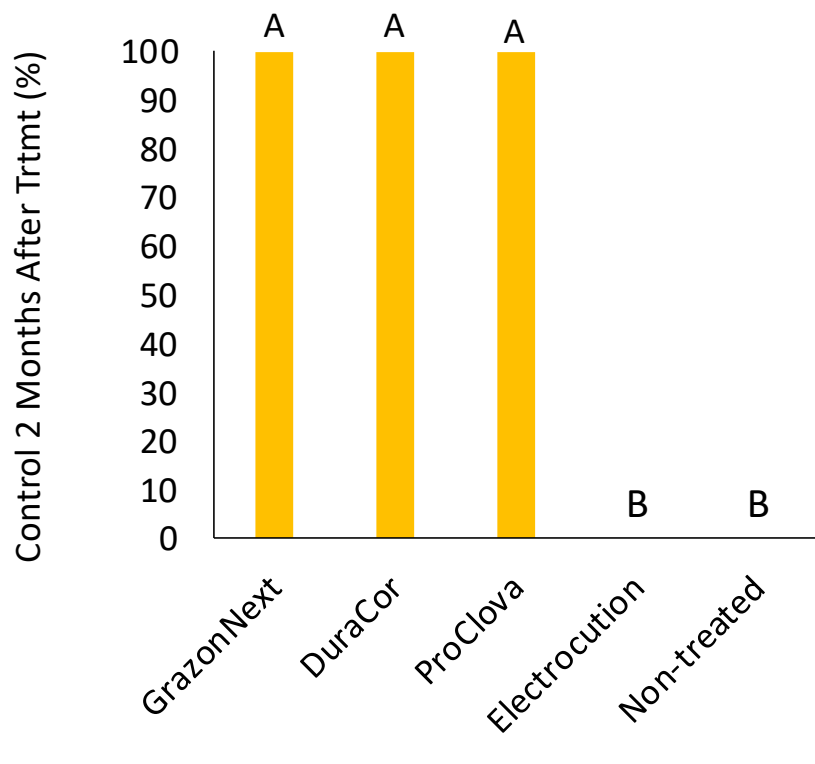
ProClova

DuraCor



Influence of Treatments on Common Ragweed Control

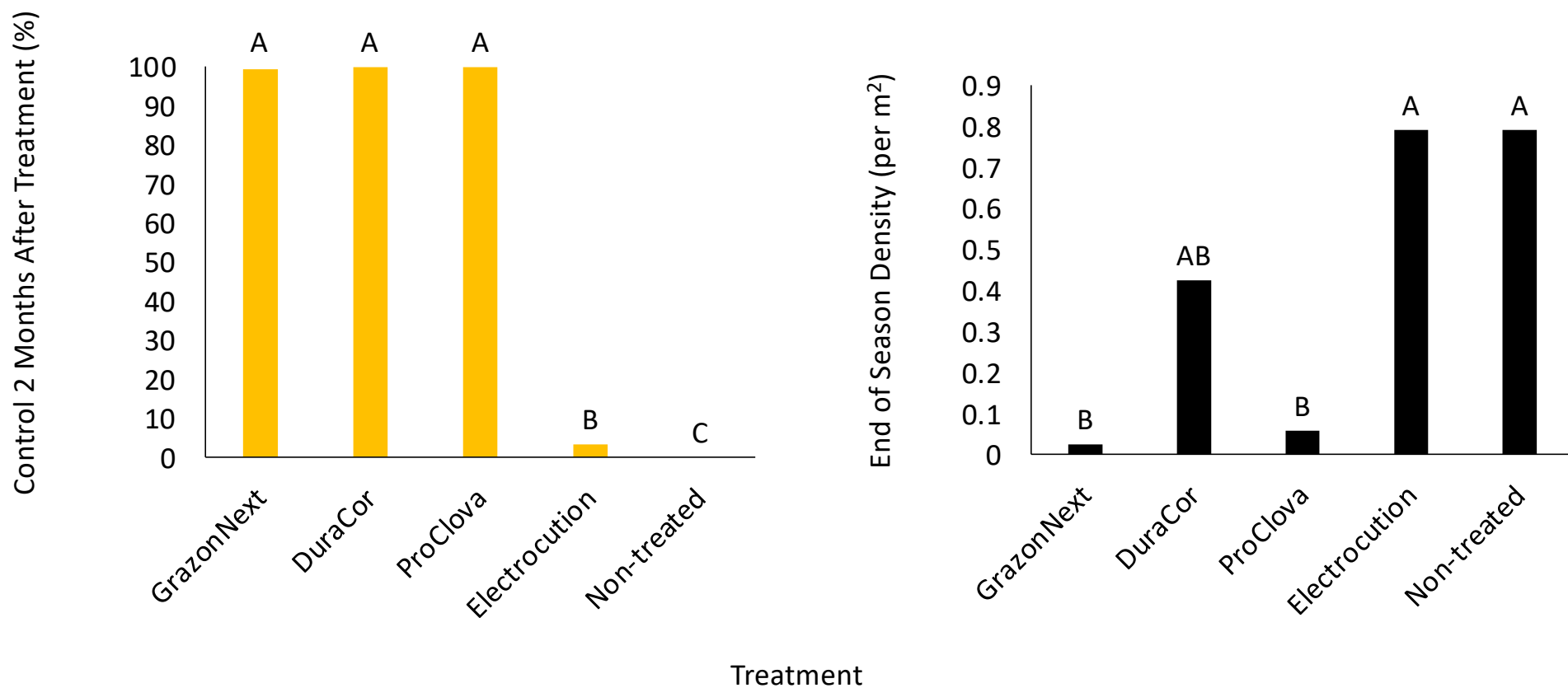
(summarized across Hurley, Linneus, and Montgomery City, 2020)



*Bars followed by the same letter are not different, $LSD_{0.05}$

Influence of Treatments on Annual Fleabane Control

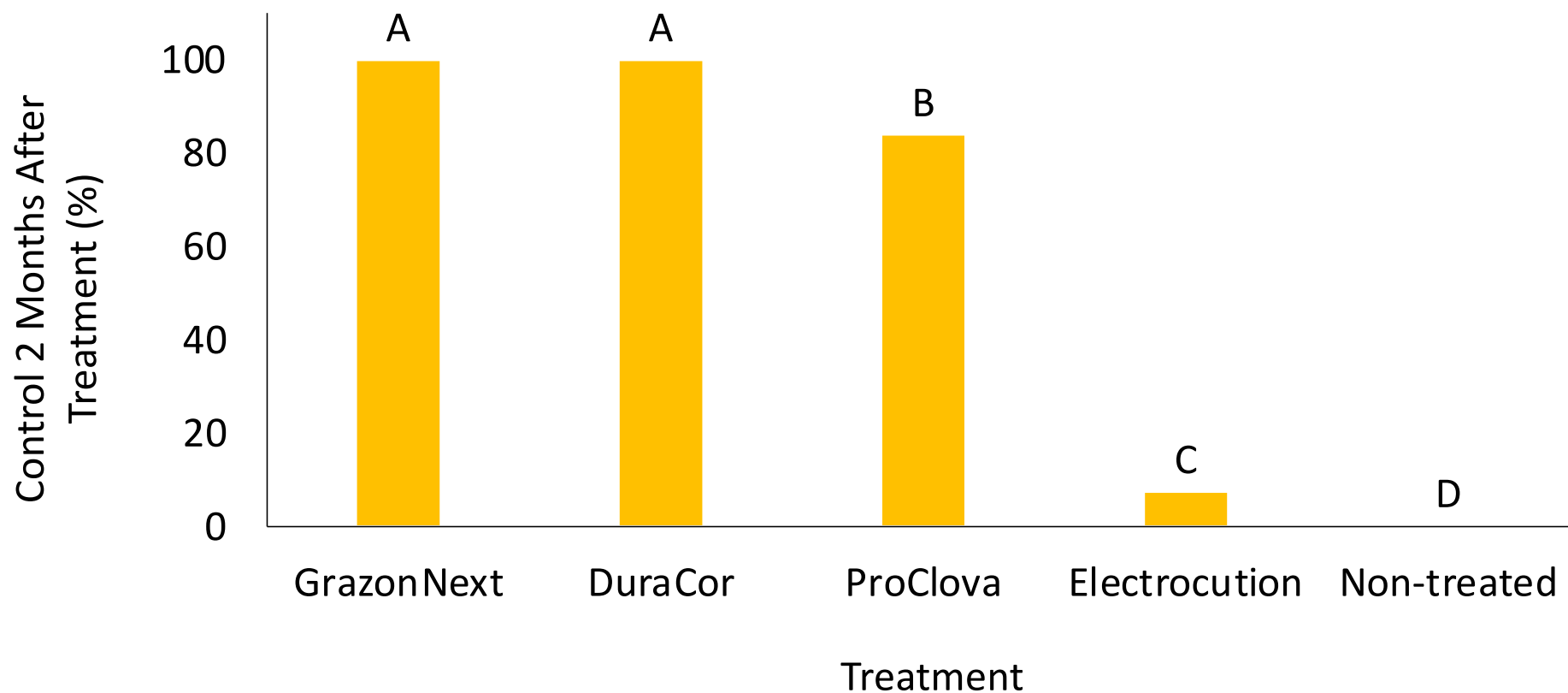
(summarized across four Missouri locations, 2020)



*Bars followed by the same letter are not different, LSD_{0.05}

Influence of Treatments on Musk Thistle Control

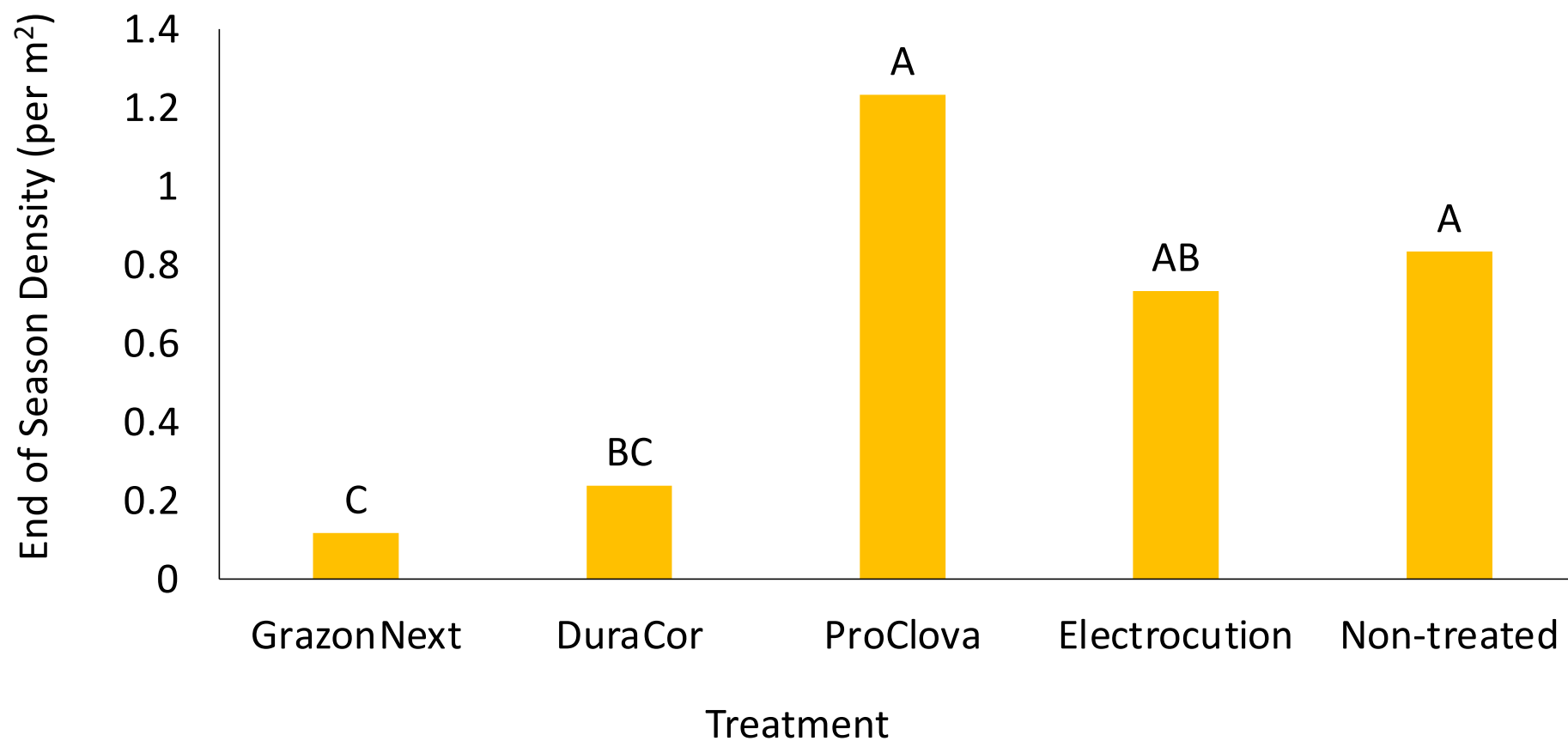
(summarized across Linneus and Hurley, 2020)



*Bars followed by the same letter are not different, $LSD_{0.05}$

Influence of Treatments on End-of-Season Horsenettle Density

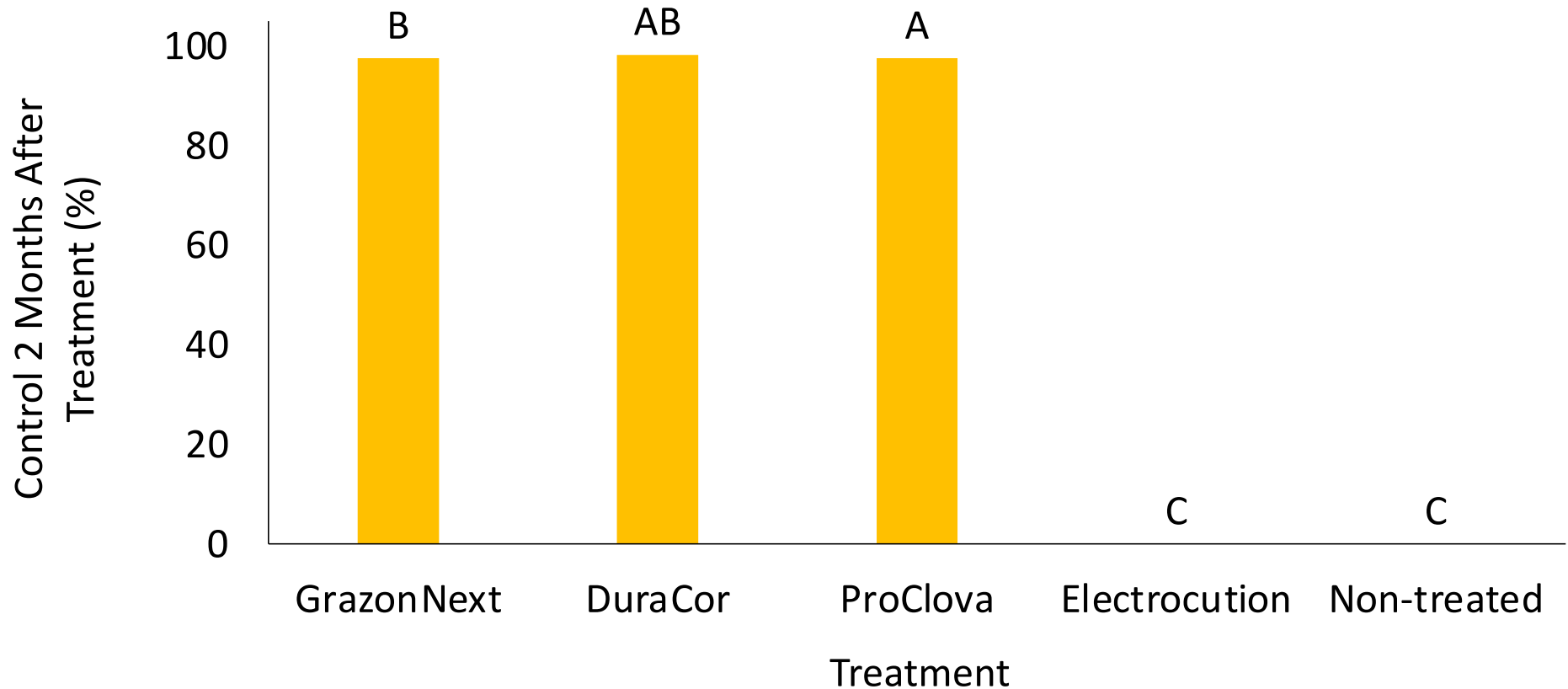
(summarized across four Missouri locations, 2020)



*Bars followed by the same letter are not different, $LSD_{0.05}$

Influence of Treatments on Wild Carrot Control

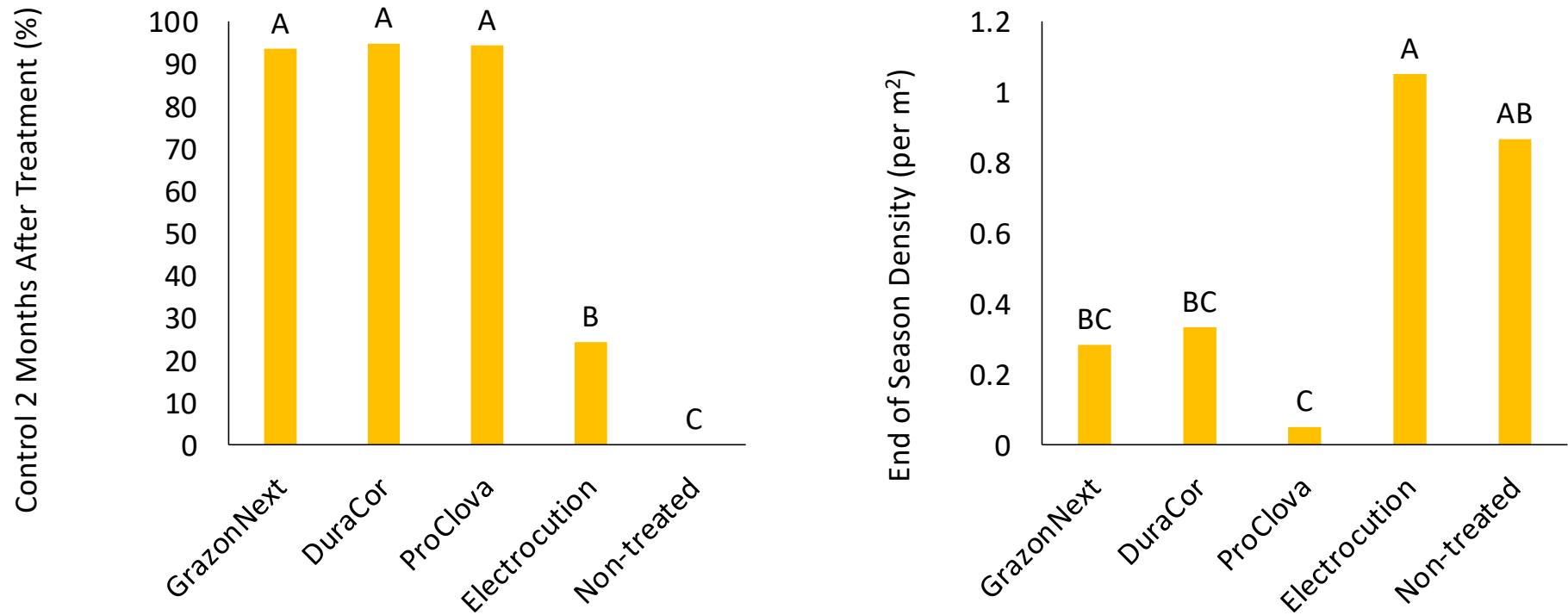
(summarized across Edgar Springs and Linneus, 2020)



*Bars followed by the same letter are not different, $LSD_{0.05}$

Influence of Treatments on Ironweed Control

(summarized across Edgar Springs, Linneus, and Montgomery City, 2020)



*Bars followed by the same letter are not different, $LSD_{0.05}$

Treatment

Early-season may not be the best fit for electrocution in pastures. Many annual weeds will germinate after the treatment or never get contacted.

Electrocution



Non-treated



*photos taken 2 months after treatment

But for some biennial and perennial weeds that are tall enough to get contacted by the boom, it can be effective.

Electrocuted Poison Hemlock



Non-treated Poison Hemlock



Weed Control Provided by ProClova vs DuraCor

Hurley, Missouri; 1 month after treatment

ProClova



DuraCor



Ironweed Following DuraCor Application

Linneus, MO 1 month after treatment



Preliminary Results

ProClova caused some initial white clover injury but it recovered after a few weeks; red clover was injured more than white clover but still not completely killed as with GrazonNext and DuraCor

All herbicide treatments provided similar control of common ragweed, tall ironweed, annual fleabane and wild carrot; ProClova was weaker on horsenettle and thistles than GrazonNext or DuraCor

Weed electrocution does not appear to be a good fit for early-season weed control in pastures. It is important to have a height differential between the weeds and forage, which usually occurs later in the season. Later-season evaluations of this implement will be conducted in the future.