



Eric Bergeron

Gowan USA Product Update
Louisiana Agricultural & Technology Management
Conference

February 15, 2018

Craig A. Sandoski

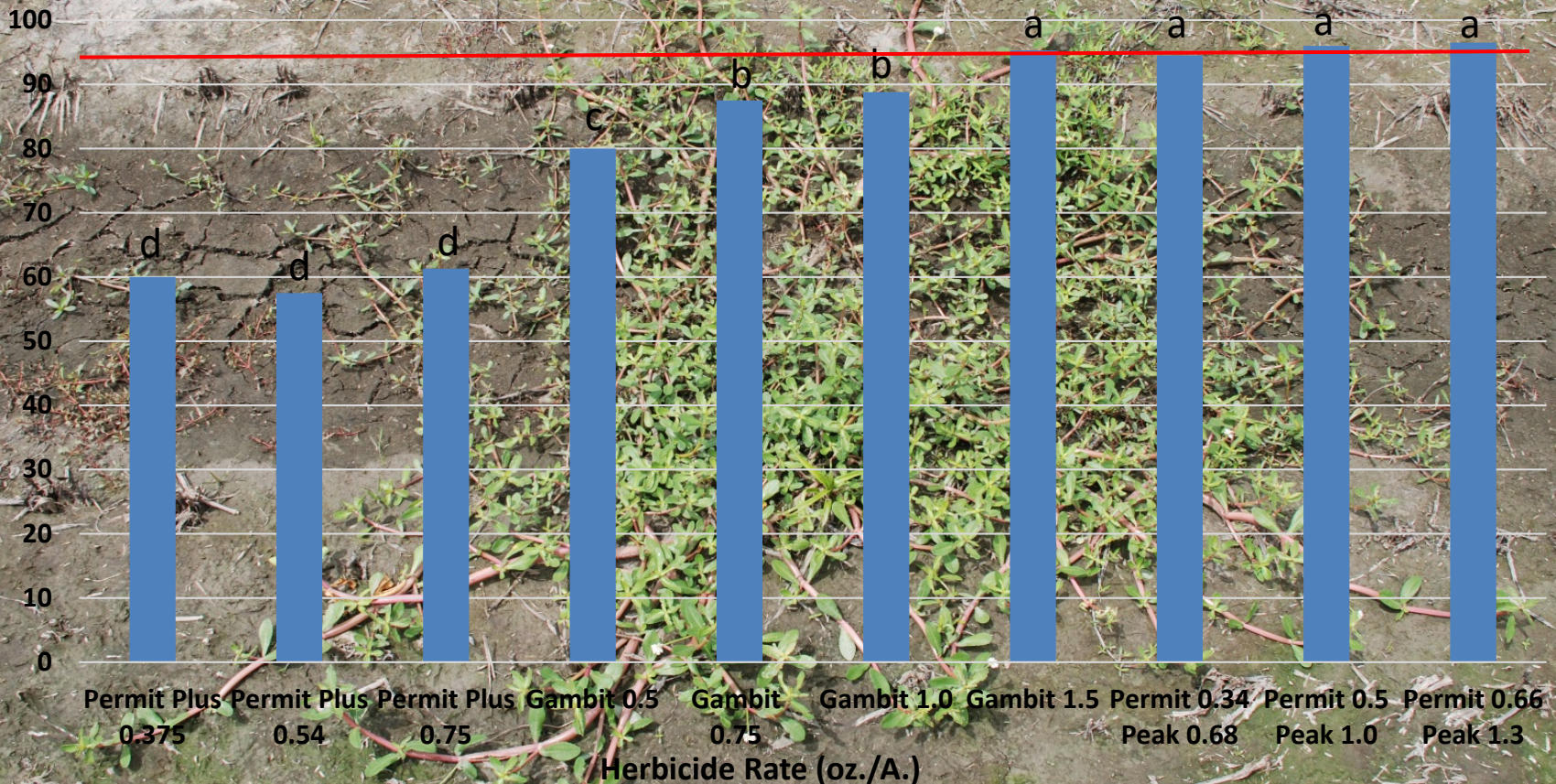
- New products from Gowan:
 - Gambit[®] herbicide
 - Previsto[®] fungicide/bactericide
 - Rogue[™] and Rogue[™] Plus herbicides



GAMBIT[®]
HERBICIDE

- Gambit is a pre-mix of Permit[®] and Peak[®] formulated as a 79% DG (50% halosulfuron + 29% prosulfuron)
- Pre-plant burndown through post-flood post-emergence weed control in rice
- Rate range of 1.0 – 2.0 oz./A.
 - 1.0 oz./A. is equivalent to 0.67 oz. Permit/A. + 0.5 oz. Peak/A.
 - 2.0 oz./A. is equivalent to 1.33 oz. Permit/A. + 1.0 oz. Peak/A.
- Seasonal use limit of 2.0 oz./A., 48 day PHI consistent with Permit and Permit Plus labels
- Label to include control of 80 broadleaf and sedge weeds
- 10 month plant-back for STS and non-STs; consistent with Peak label
- State registrations have been obtained in all Mid-South states.

Alligatorweed Control (%) at 21 DAT Following Pre-Plant Burndown Application



Dr. Eric Webster and Craig Sandoski

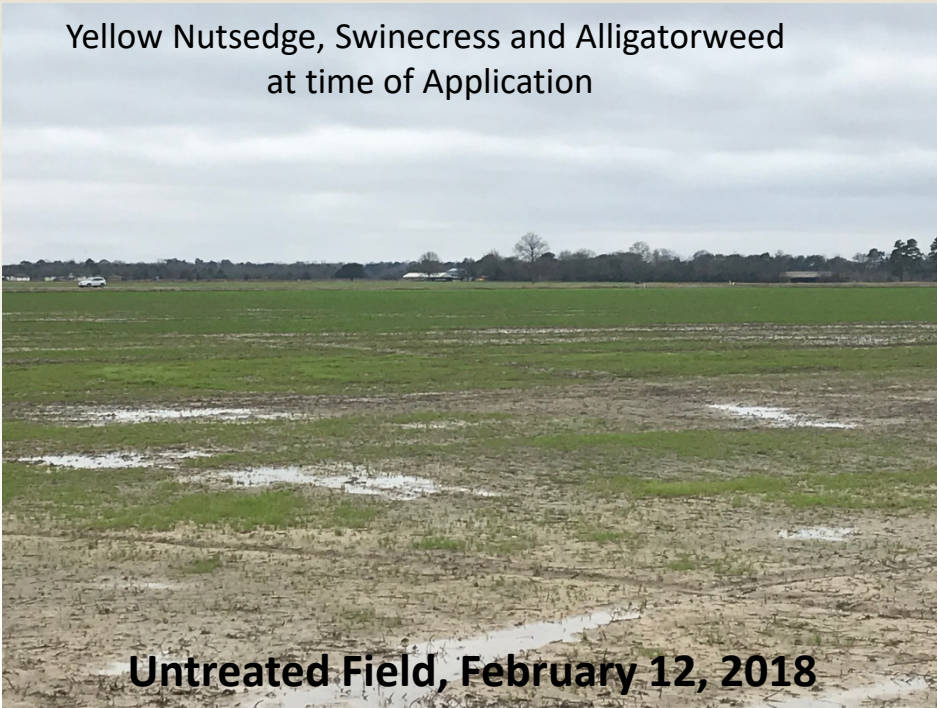
NIS (0.25% v/v) included with all treatments.

Means with the same letter are not significantly different (LSD, P = 0.05)

(Garber Farms, Iota LA)



Yellow Nutsedge, Swinecress and Alligatorweed
at time of Application



Untreated Field, February 12, 2018



February 12, 2018

76 DAT

**Gambit (1.0 oz./A.) + glyphosate (25 oz./A.)
Applied Nov. 28, 2017**

Untreated Check



48 DAT

Gambit (1.0 oz./A.) PRE



Untreated Check



38 DAT

Gambit (1.0 oz./A.) Early POST



Untreated Check



28 DAT

Gambit (1.0 oz./A.) Late POST

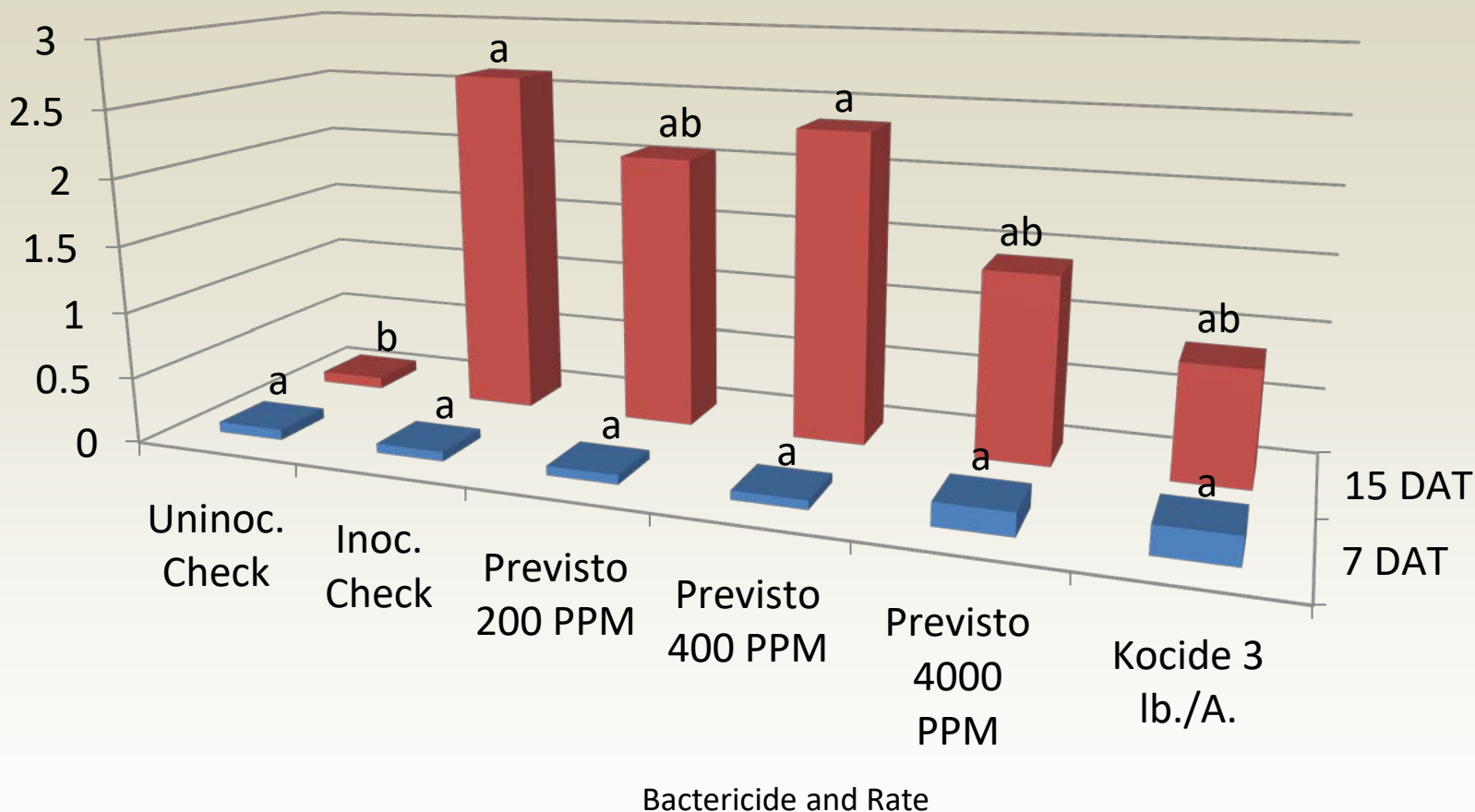


- Where residual control of broadleaves and sedges is needed, e.g. Provisia[®] rice
 - Pre-plant burndown
 - Pre-emergence
 - Early post-emergence
- Pre-flood where difficult-to-control broadleaf weeds are present
- Post-flood for seed-head suppression of sesbania and jointvetch
- Row rice where overlapping of residual herbicides is critical



Control of Bacterial Panicle Blight and the 2018 Louisiana E.U.P. for Rice

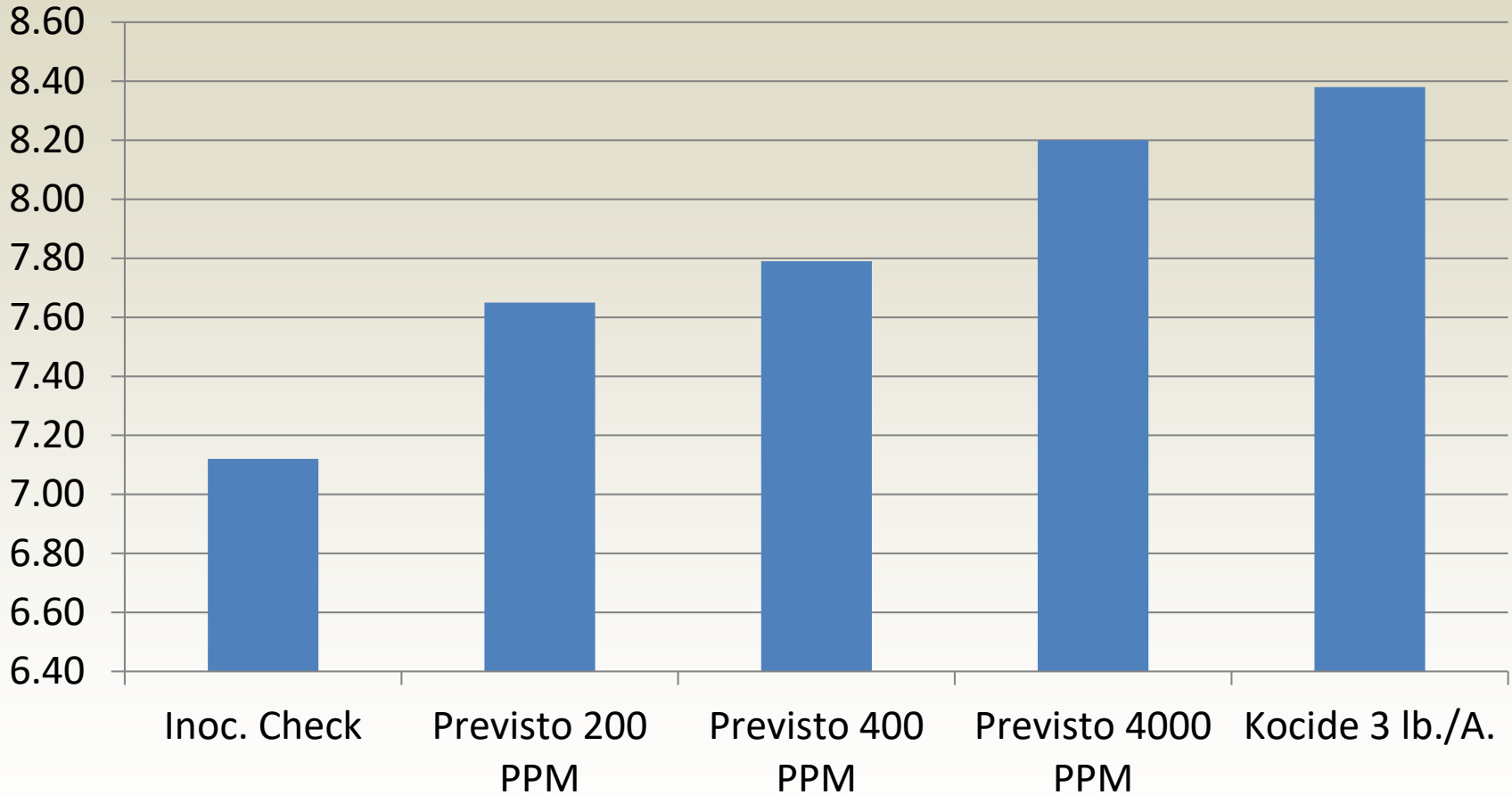
Overall Disease Rating (Incidence X Disease Score/100) at 7 and 15 DAT



Dr. Jong Ham, Louisiana State University

Means within evaluation with the same letter are not significantly different (HSD, P=0.05)

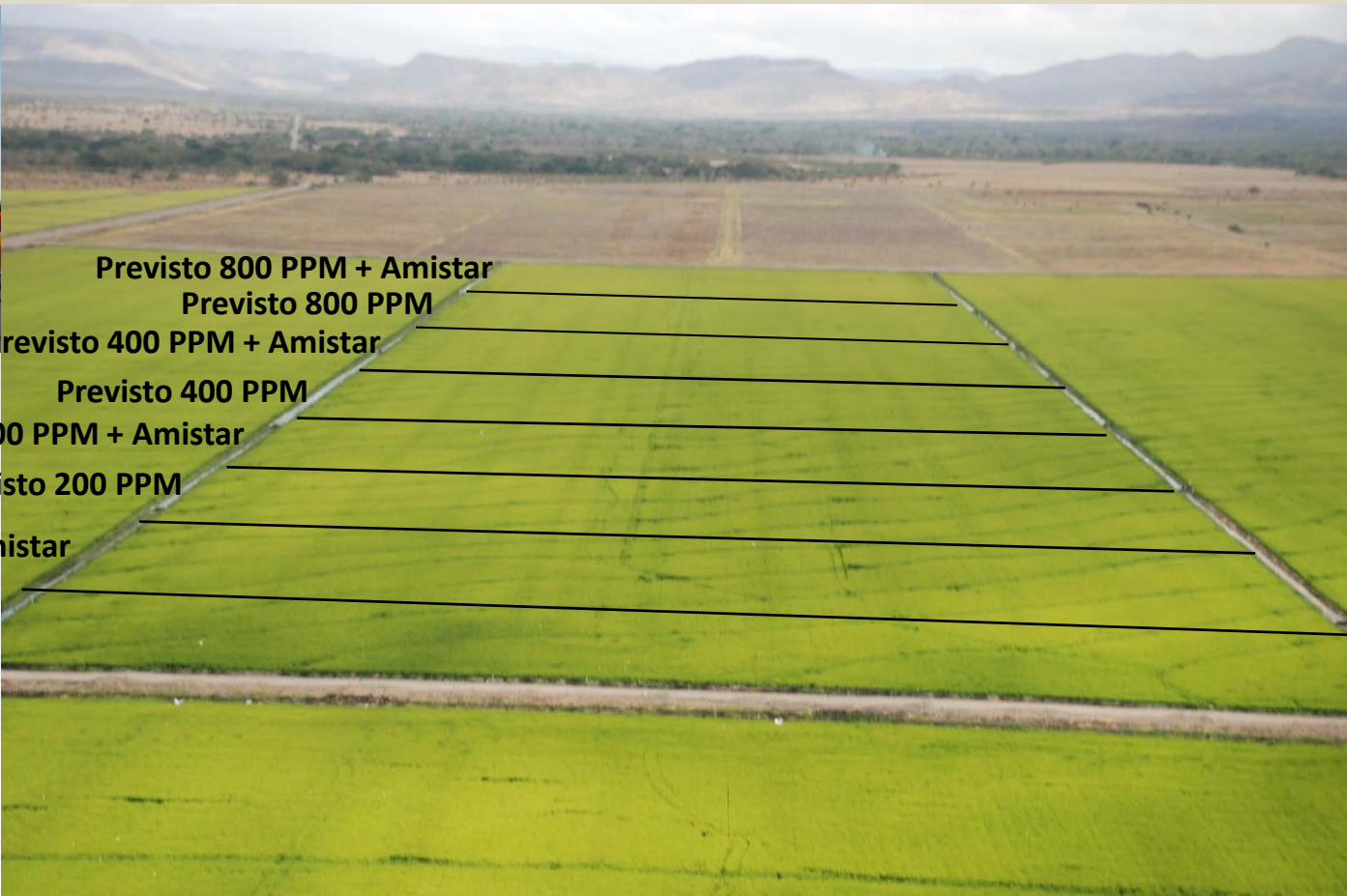
Bengal Yield (lb./plot)



Dr. Jong Ham, Louisiana State University

No significant differences were noted among treatments (HSD, P=0.05)

6 gpa application



Previsto 800 PPM + Amistar
Previsto 800 PPM

Previsto 400 PPM + Amistar

Previsto 400 PPM

Previsto 200 PPM + Amistar

Previsto 200 PPM

Previsto 100 PPM + Amistar

Previsto 100 PPM

Rep 1



Rep 2



Rep 3



Previsto Rate (fl. oz./A.) by Application Volume

GPA	100 PPM	200 PPM	400 PPM
2.5	0.9	1.8	3.5
3	1.0	2.1	4.1
5	1.8	3.5	7.1
10	3.5	7.1	14.1

If the effective use rate is ~200 – 400 ppm in 5 – 10 gpa, the rate range will be 3.5 – 14.1 oz./A.

Timing of BPB applications coincides with sheath blight applications (late boot stage).

Previsto applications would be made preventatively to rice in combination with rice fungicides.

Based on current Previsto pricing, this could be a very attractive offer to growers!

- Gowan is proposing an EUP for the state of Louisiana in 2018 that will allow experimental use of Previsto on rice.
- Since copper has a tolerance on rice, this is “highly likely” to happen.
- Gowan is currently working with LA Department of Agriculture and Forestry to define the size of the EUP and obtaining the EPA approval
- What do we need? Cooperating growers with yield monitoring combines and BPB-susceptible cultivars, as well as aerial applicators with mapping capabilities that are willing to cooperate.



**Benzobicyclon – A Novel
Herbicide for US Rice Production**

- Benzobicyclon is the first HPPD inhibitor (Group 27) labeled for US rice (Butte® 3.64 G)
- Formulated as a stand-alone SC (Rogue™) and a WDG pre-mix with Permit® with the trade name of Rogue™ Plus
- Post-flood pre-emergence and post-emergence weed control
- Apply to submerged weeds as soon as a stable flood is established to maximize root and shoot uptake
- Ground and aerial application
- Safe to inbred and hybrid rice

- Barnyardgrass must be ≤ 2 leaves at time of application for control and submerged for maximum control
- The Permit component of Rogue Plus enhances control of barnyardgrass, yellow nutsedge, sesbania and jointvetch
- Maintaining a deep and stable flood (3 – 4 in.) enhances weed control
- Rogue and Rogue Plus can only be used on rice that is followed by rice
- No more than one application of Rogue or Rogue Plus per year

- **Water-seeded rice is a great fit for benzobicyclon!**
 - Apply when rice has “pegged” and the flood will be held. Can be a “foundation” herbicide program.
- **Where does Rogue/Rogue Plus fit in drill-seeded rice?**
 - Zero-grade rice is an ideal fit for Rogue
 - Side inlet irrigation on straight levee rice is ideal for maintaining placement of the herbicide in the field.
 - Use as a “layby” herbicide or sprangletop rescue for drill-seeded rice.
 - Avoid use on fields with gravity irrigation and short distances between levees.



• Registration Status

- Butte[®] had a conditional registration CA for the 2017 season. 50,000 acres was treated in the state (approximately 10% of the rice acres).
- The conditional registration for 2018 has been expanded to approximately 100,000 acres.
- Gowan was required to do additional studies on the active metabolite of benzobicyclon. These studies are completed and Gowan is waiting on EPA approval of the studies.
- Once approved, the Mid-South registration package for Rogue and Rogue Plus will be delivered to EPA.
- Gowan is pursuing a state E.U.P. for Rogue on water-seeded rice in LA for 2018.

Questions?

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