

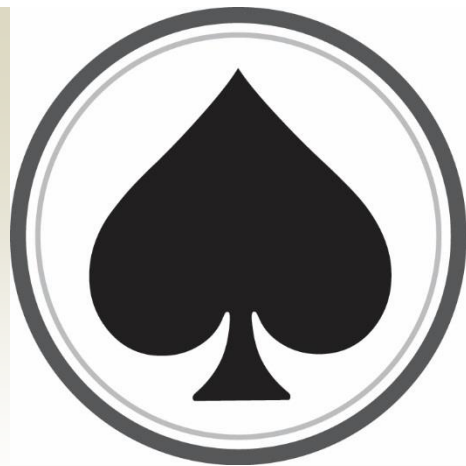


Product Update for LATMC Emerging
Technologies Session

February 16, 2017

Craig A. "Coach" Sandoski

- New products from Gowan:
 - Gambit[®] herbicide
 - Rogue[®] herbicide



GAMBIT[®]
HERBICIDE

- Gambit is a pre-mix of Permit[®] and Peak[®] formulated as a 79% DG (50% halosulfuron + 29% prosulfuron)
- Field corn, grain sorghum, proso millet and rice will be labeled
- 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
- 10 month plant-back for STS, 18 month for non-STs; consistent with Peak label
- Ground and aerial application with NIS, COC or MSO
- Labeled for control of 80 broadleaf and sedge weeds

- The move from Permit to Permit Plus resulted in improved weed control for five key weeds:
 - Ducksalad, Cutleaf Groundcherry, Smartweed, Morningglory and Texasweed
- Gambit brings an additional 42 weeds (listed as controlled) when compared with the Permit Plus label.
- Gambit will provide another significant improvement in weed control with the halosulfuron portfolio:
 - Arrowhead, Redstem and Alligatorweed controlled by POST applications
 - Dayflower, Eclipta, Plantain controlled by PRE applications
- Registration timeline: PRIA date of June 19th, 2017.



Rep 1



Rep 2



Rep 3



Rep 4

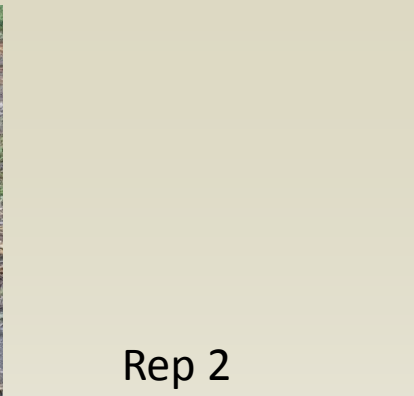
Mamou, LA



**Untreated Check
4/26/2016 (21 DAT)**



Rep 1



Rep 2



Rep 3



Rep 4

Mamou, LA



**Gambit (1.5 oz./A.) + NIS (0.25% v/v)
4/26/2016 (21 DAT)**



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

- Benzobicyclon is the first HPPD inhibitor (Group 27) for US rice
- Formulated as a stand-alone SC (Rogue[®]) and a WDG pre-mix containing Permit[®] with the trade name of Rogue[®] Plus
- Rogue (8.4 – 12.6 oz./A.) and Rogue Plus (0.33 – 0.5 lb./A.) rates represent 100 - 150 g. benzobicyclon/A.
- Post-flood pre-emergence and post-emergence weed control in water-seeded and drill-seeded rice
- Apply to submerged weeds as soon as a stable flood is established to maximize root and shoot uptake
- Ground and aerial application with NIS or COC

- Safe to inbred and hybrid japonica rice
- Barnyardgrass must be ≤ 2 leaves at time of application for 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

• Weeds controlled:

Ducksalad
Smallflower umbrella sedge*
Rice flatsedge*
Amazon sprangletop
Bearded sprangletop
Red sprangletop
Gooseweed
Water hyssop
Roundleaf mudplantain
Winged waterprimrose
Globe fringebrush

Weeds suppressed:

Barnyardgrass*
Hemp sesbania**
Jointvetch**
Yellow nutsedge* **
Large crabgrass
Broadleaf signalgrass
California arrowhead

- **Where does Rogue/Rogue Plus fit in water-seeded rice?**
 - Water-seeded rice is an ideal fit due to timing of flood relative to weed size.
 - Apply Rogue or Rogue Plus as soon as the flood is going to be held indefinitely.
- **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.
 - Avoid use on fields with gravity irrigation and short distances between levees.

- **Registration Status**

- Benzo was submitted concurrently to the EPA and CDPR in December 2014
- Butte[®] (3% benzobicyclon + 0.64% halosulfuron granular formulation) was the only end use product submitted
- Registration in CA was expected in August, 2016. EPA has asked for more data and the PRIA date has been moved to March, 2017.
- The Mid-South registration package for Rogue and Rogue Plus will be delivered to EPA in late 2017.

Rogue and Rogue Plus Herbicides

Steve Herbert Farm

Kaplan, LA

31 DAT



Herbicide Program:

Rogue Plus (0.5 lb./A.) + COC (1 pt./A.)

**Applied 2 days after permanent flood to barnyardgrass (1 – 3 leaves),
pickerelweed, yellow nutsedge, knotgrass and alligatorweed**

- Where do Rogue and Rogue Plus fit?
 - Broad spectrum weed control in water-seeded rice due to timing of weed emergence.
 - Excellent post-flood control of sprangletop, sedges, broadleaves and exotic aquatics in drill-seeded rice.
 - There is a *potential* use for benzobicyclon to control weedy rice in conventional, *non-traited* rice if we can determine the genetic background of a population of weedy rice prior to treatment.

Questions?

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