



December 19, 2017

Ms. Pamela Creedon, Executive Officer
California Regional Water Quality Control Board
Central Valley Region
11020 Sun Center Drive, Suite #200
Rancho Cordova, California 95670-6114

RE: RICE PESTICIDE PROGRAM SUMMARY OF THE EXISTING 2017
MANAGEMENT PRACTICES AND 2018 RECOMMENDATIONS

Dear Ms. Creedon:

The California Rice Commission (CRC) manages the Rice Pesticide Program (RPP) and implements water quality monitoring and reporting activities in compliance with the Conditional Prohibition of Discharge requirements in the Basin Plan for certain rice pesticides. Monitoring and reporting requirements for the 2017 RPP are specified in Resolution No. R5-2010-9001.

This letter serves as a review of the 2017 RPP program and offers recommendations for the 2018 program approval for your consideration.

Monitoring Summary

In 2017, there were four exceedances of the 1.5 $\mu\text{g}/\text{L}$ thiobencarb Basin Plan Performance Goal. Two exceedances occurred at the Colusa Basin Drain 5 (CBD5) site (Colusa County) from 23 May and 30 May (both at 1.8 $\mu\text{g}/\text{L}$). Exceedances occurred at the Colusa Basin Drain 1 (CBD1) site (Yolo County) 1 June, and one at the Butte Slough (BS1) site 23 May (all at 1.8 $\mu\text{g}/\text{L}$).

We are pleased to report that the cities of Sacramento and West Sacramento had no exceedances of the secondary maximum contaminant level (MCL) of 1.0 $\mu\text{g}/\text{L}$. Monitoring showed no results at, or above, the detection level of 0.1 $\mu\text{g}/\text{L}$.

The CRC, through collaboration with the Department of Pesticide Regulation (DPR), performed additional monitoring at two sites on the Colusa/Glenn County line. These sites are at Norman Road on Willow Creek (GS1), and Norman Road on the Colusa Drain (GS2). Data from these two additional monitoring locations provide verification that the CBD5 site receives considerable drainage from Glenn County. At GS1, an exceedance of the Performance Goal was found on 30 May (1.7 $\mu\text{g}/\text{L}$). The GS2 site had exceedances on 16 May, 23 May and 30 May (2.5 $\mu\text{g}/\text{L}$, 2.7 $\mu\text{g}/\text{L}$ and 2.8 $\mu\text{g}/\text{L}$).

In all cases, sites that were above the Performance Goal began tapering off by 1 June, and had recovered to acceptable levels by the next sampling event on 6 June.

Overview of the 2017 Season

While 2017 had a rainy start, detections persisted in some of the drains, as flow slowed during rice herbicide hold periods. Repeated detections in the Colusa Basin Drain (CBD), especially at site CBD5, prompted additional upstream monitoring in 2015 and 2016. Exceedances above the Performance Goal were measured at additional sites in Glenn County in 2016, and as a result, two upstream sites were added for monitoring in 2017.

Planting and subsequent herbicide application occurred later than typical in 2017 due to the wet spring. This resulted in a later-than-typical sampling schedule, which started in May (rather than April), and continued through mid-July (rather than the end of June).

Early water release attributable to high wind conditions has occurred in the past (most recently in 2013), and may have been a factor in early-season detections in 2017. A higher-than-normal wind event was noted early in the monitoring season. Meeting water holding requirements can be challenging during early-season high wind events because the rice is not yet established enough to prevent water from being moved around the field, and potentially over a check box or levee, or cause the seedlings to uproot.

Following are key considerations in the 2017 season.

- 1) The most significant change in conditions likely impacting monitoring results was the grounding of the liquid formulation (Abolish 8EC) north of Highway 20 site and west of the Sacramento River.
- 2) The second most significant change was the registration of benzobicyclon (Butte Herbicide) a thiobencarb alternative for sedge weed control.
- 3) From 2006 to 2013, thiobencarb use declined as a result of sedge weed resistance to the herbicide and the registration of other herbicides. The decline in thiobencarb usage meant the herbicide was out of use long enough to once again become effective in controlling the broad leaf weeds. As a result, the industry began experiencing an increase in thiobencarb usage from 2014 to 2016. In 2017, thiobencarb usage was estimated to be 145,703 acres, down approximately 40,000 acres from 2016. Our assessment of the acreage decrease is due to less rice acres planted, and the registration of Butte Herbicide.
- 4) In 2017, waterhold and seepage inspections by County Agricultural Commissioner (CAC) continued with increases in the number of violations in Butte, Colusa, Glenn, Sutter, Yolo and Yuba Counties. Examples of the violations include the following examples:
 - a. One grower and Colusa County staff provide the following information:
 - i. On a Saturday morning, one grower discovered a pilot made several passes at least 150 feet into his field while applying Bolero UltraMax. The neighboring fields are separated by a 10-foot road, which means accurate aerial applications are possible.

The grower's field is just north of the CBD5 site, and water was flowing off the field in order to establish the rice stand. He immediately boarded the field and covered the box with plastic and soil once he discovered his field had been inadvertently treated with Bolero UltraMax. The grower contacted the pilot to demand he own up to the mistake and turn himself in. The owner of the aerial application company reported the mistake to the Colusa CAC office to avoid the grower from filing the claim. The result should be a drift violation.

- b. Colusa County staff provided the following information:
 - i. A reputable aerial applicator applied thiobencarb to the wrong field. The application took place at 7:30 AM and the grower noticed it at 2:30 PM. The grower kept water on the property through his drain system.
 - ii. On May 22, a grower turned in his neighbor for letting water off a posted thiobencarb field. The grower called the county, provided photos and stated that he did not care if the county used his name when contacting the neighbor. The field is close to the 2047 drain, which is just north of CBD5. The monitoring results were 1.8 $\mu\text{g}/\text{L}$ on Tuesday, May 23, and again on Tuesday, May 30.
- c. Yolo County staff provided the following information:
 - i. Received a call from Yolo County that they found an Abolish 8EC treated field with water running out of it. The field was five-days into the waterhold, and the operator told the irrigator to add water. Too much water was added, so instead of shutting off the water, the top boards were pulled in the lower rice check.

2018 RPP Recommendations

In developing the following recommendations, the CRC recognizes exceedances of the eight Performance Goal, in the drains, and notes that the secondary MCL at the city water intakes was not in violation.

The CRC proposes the following additional requirements in 2018:

- Support voluntary acreage reductions by the registrant within the current manufacturing and distribution limitations.
- Continue the area in Colusa and Glenn Counties north of Highway 20 and west of Sacramento River with limitations to ground only applications of Abolish 8EC, and full use of Bolero UltraMax and League MVP.

From the RPP Resolution and the 2017 approval letter, the CRC commits to continue the following:

- The CRC will implement aggressive efforts to implement additional, targeted industry outreach and education to growers, pest control advisers (PCAs),

applicators, dealers, and distributors during the 2018 season. Examples include the following:

- Continuance of the mandatory thiobencarb stewardship meetings.
- Support CACs permit restrictions against an individual for repeated non-compliance.
- Increase outreach with emphasis on counties where violations occur through letters, e-communications, and the calricenews.org website.
- Maintain contact with growers, applicators, and PCAs.
- Continue funding to counties for off-hours surveillance inspections.
- The CRC plans to continue the approved recommendations as outlined in Resolution No. R5-2010-9001, highlighting the following:
 - Continue to implement the RPP water quality monitoring and reporting activities.
 - Continue stakeholder outreach activities including collaboration with the cities, DPR, CACs, and the Central Valley Regional Water Quality Control Board.

The CRC supports your staff utilizing the stakeholder process and maintaining the practice to facilitate an effective water quality program. Thank you for your consideration of our recommendations. Please contact me if you have any questions, or require additional information.

Sincerely,



Tim Johnson
President & CEO

cc: Ms. Ashley Peters, Central Valley Regional Water Quality Control Board
Ms. Donna Marciano, Department Pesticide Regulation
Mr. Ken Everett, Department of Pesticide Regulation
Dr. Robin R. Charlton, Valent, U.S.A. Corporation
Ms. Roberta Firoved, California Rice Commission