UC Cooperative Extension
University of California
Agriculture & Natural Resources

Rice Notes – November 2026

Sutter, Yuba, Placer, and Sacramento Counties

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Upcoming Events

Rice Winter Grower Meetings

- Woodland: February 16, 2027
  - Yolo County Farm Bureau Office, 8:00 AM
- Richvale & Willows: February 17, 2027
  - Richvale Evangelical Church, 8:00 AM
  - Willows location TBD, 1:00 PM
- Colusa & Yuba City: February 18, 2027
  - Colusa Industrial Properties Conference Room, 8:00 AM
  - UCCE Sutter-Yuba Office, 12:00 PM

2026 year in review

Bruce Linquist, Cooperative Extension Rice Specialist, UC Davis

No two years are alike! This year started off promising with dry weather allowing about 10-20% of the acreage to get planted in early spring. However, rain in early May delayed planting a lot of the rest of the acreage and put everything into a tight planting window. The end result was that overall planting was delayed and May 19 marked the day when 50% of acreage was planted (USDA data), which is about a week later than normal. The other impact of the rains was that overall acreage was down, with USDA reporting 455,000 acres planted (average is around 500,000). In contrast, acreage in the Delta region continued to expand and Michelle will be reporting on that in her newsletter article.

After planting, the bulk of the growing season was very mild relative to other years. However, once we got into the grainfill period in September, temperatures got unseasonably warm. With repeated reminders of an upcoming El Nino year and the heavy winter rains, many growers were worried about rainfall during harvest. Fortunately, October has been mostly dry and warm, allowing the crop to get harvested in a timely fashion.

Given the late planting, which can be accompanied by omitting certain steps and not getting things done timely, I had expected to see a lot of weedy fields. While there certainly were some, I also saw a lot of clean good-looking fields. In terms of weeds, there were many fields with a lot of grass weeds, particularly Walter's barnyardgrass. There were also rumors that there was more weedy rice this year; however, there was only one new field identified with weedy rice.

Unlike previous years we saw relatively little bakanae this year. Also, blast and smut were minimal, while aggregate sheath spot and stem rot were at normal levels. The first armyworm flight in June/July resulted in heavy infestations in some fields, but the second flight in August was small and resulted in very few worms in the field.

I write this Oct 21, so yield and quality data are still coming in. USDA figures indicate that 80% of the rice crop was harvested by Oct 18. Those data also suggest that 50% of the crop was harvested on October 9, which is a few days later than normal but expected, given the later planting. While it has been dry and warm to date, the rest of October looks to be cooling off with a greater chance of rain in the forecast.

In terms of yields and grain quality, it is too early to tell. I have heard a lot of mixed reports on yield. Some indicated that the early planted rice had high yields and the later planted rice yields were down by around 5%. I have also talked with growers who planted later but have had very good yields. In terms of quality, there is even

less certainty. While a dry and warm September/October allowed for timely harvest, there are concerns that quality may also be down due to the higher temperatures.

2026 Delta rice recap

Michelle Leinfelder-Miles, Delta Crops Resource Advisor

Delta rice acreage continues to increase, and yields are comparable with the statewide average. Table 1 shows San Joaquin County acreage and yields based on the Agricultural Commissioner's crop reports. For the period of time shown, county rice acreage was entirely in the Delta. While the 2026 crop report will not be available until next year, I estimate that San Joaquin County reached 20,000 acres, with another roughly 2,000 acres in Sacramento and Contra Costa counties.

To support the growing industry, UCCE collaborates with the California Rice Experiment Station to evaluate commercial varieties and advanced breeding lines. The San Joaquin County Delta was one of eight locations in the 2026 statewide trial. The Delta is the only drill-seeded site and is a test site for very-early and early maturing varieties because it has cooler growing conditions than other rice growing regions of the state. The 2026 seasonal temperatures were moderate. According to the CA Irrigation Management Information System (CIMIS) station on Staten Island, the average daytime high from June through August was 90°F, and the average nighttime low was 55°F. My hunch is that the 2026 average yield for the region will be somewhere between the 2024 and 2025 averages (Table 1). Variety trial results will be available in the February 2027 newsletter.

This year, I had a potassium (K) rate trial adjacent to the variety trial. Over the last few years, I have wondered whether K deficiency was increasing disease incidence on some Delta farms. Stem rot and aggregate sheath spot are two diseases that may worsen with K deficiency. Potassium can be limiting in some Delta soils, particularly when K fertilizers are not regularly applied and crops mine the soil K. Based on the work of UC Rice Extension Specialist, Bruce Linquist, if soil extractable K is less than 60 ppm, K is deficient, and if extractable K is between 60 and 120 ppm, K fertilizer would likely be beneficial. At-planting soil testing ranged from 76-87 ppm, indicating that fertilizer application could be beneficial. Both M-105 and M-210 were evaluated, and rates of 0, 50, 100, 150, and 200 lb K per acre were applied over four replicate blocks. M-105 is a very-early maturing variety that performs well in the Delta but tends to be more susceptible to rice blast, and M-210 is an early maturing variety with similar agronomic characteristics to M-206. My preliminary review of the data is that applying K fertilizer increased leaf K at late tillering and reduced late-season stem rot

incidence. Aggregate sheath spot incidence and yield appear not to have improved with K fertilizer. A report with statistical analysis will be forthcoming.

True armyworms were monitored using pheromone bucket traps on three Delta farms (three adjacent fields per farm). Moth catches peaked a month earlier than usual (Figure 1). I wondered whether the earlier peak would allow for a second generation during heading (which we don't typically see in the Delta), but a second peak did not occur. Trap catches varied across the three farms and across fields on the same farm, which is why it is important to scout for field-level impacts. Based on conversations with pest control advisers, I gather that armyworms were not severe enough to spray on many Delta farms.

Overall, weed control looked quite good in the areas that I visited; though, I did get a couple requests to look at off-type grasses that were not controlled by the grower's spray program. Spray timing can be challenging in the spring if conditions are windy. When sprays go on too late, the weeds can outcompete the rice. Also, when rice is grown back-to-back, it is important to rotate herbicide chemistries. We do not have a lot of rotation options for the drill-seeded system, but there are some, so please reach out in the future if you would like to discuss. Please remember that UCCE, under the direction of UC Weed Management Specialist, Kassim Al-Khatib, provides herbicide resistance testing for rice growers. Mature weed seeds can be collected in late-summer from weeds where herbicide resistance is suspected. I can submit the samples on your behalf. The seeds are grown in the greenhouse over the winter and sprayed with registered chemistries to see what materials work (or don't work). The results indicate whether a herbicide program is still effective, and they are available by early spring so growers can make decisions for the season ahead. Using the full label rate, spraying at optimum timing (when weeds are small), and herbicide rotation are important resistance management strategies. The resistance testing program is closed for this year, but in future years, please reach out if you would like to submit samples.

Over the years, we have identified weedy rice on a few Delta farms; however, there were no new identifications in the Delta this year to my knowledge. Remember that weedy rice is rice with undesirable characteristics, like seed shattering and dormancy. This means that when weedy rice goes unchecked, it can proliferate quickly and remain a problem for years to come. In fields where weedy rice has been a problem, post-harvest management should include straw chopping, but ***not*** incorporation, and winter flooding. This will keep seed on the soil surface where it can potentially deteriorate over the winter.

I want to take this opportunity to thank all the growers who collaborated on these projects, and I wish everyone a happy harvest and holiday season.

Table 1. Rice acreage and yield (medium grain).

	2025	2024	2023	2022	2021	2020	2019	2018	2017
SJC acreage*	16,100	12,700	10,990	8,930	7,070	4,990	4,360	3,620	3,060
Percent of statewide acreage in SJC	3.1	2.7	2.1	3.5	1.7	1.0	0.9	0.7	0.7
Average SJC yield (cwt/ac)	83	92	102	101	95	88	81	86	82
Average statewide yield (cwt/ac)	91	90	87	90	92	89	86	88	86

*Rice acreage and yield according to the San Joaquin County (SJC) Agricultural Commissioner's and CA Department of Food and Agriculture Crop Reports. SJC rice acreage is entirely in the Delta region. Delta acreage in other counties is not included in these statistics.

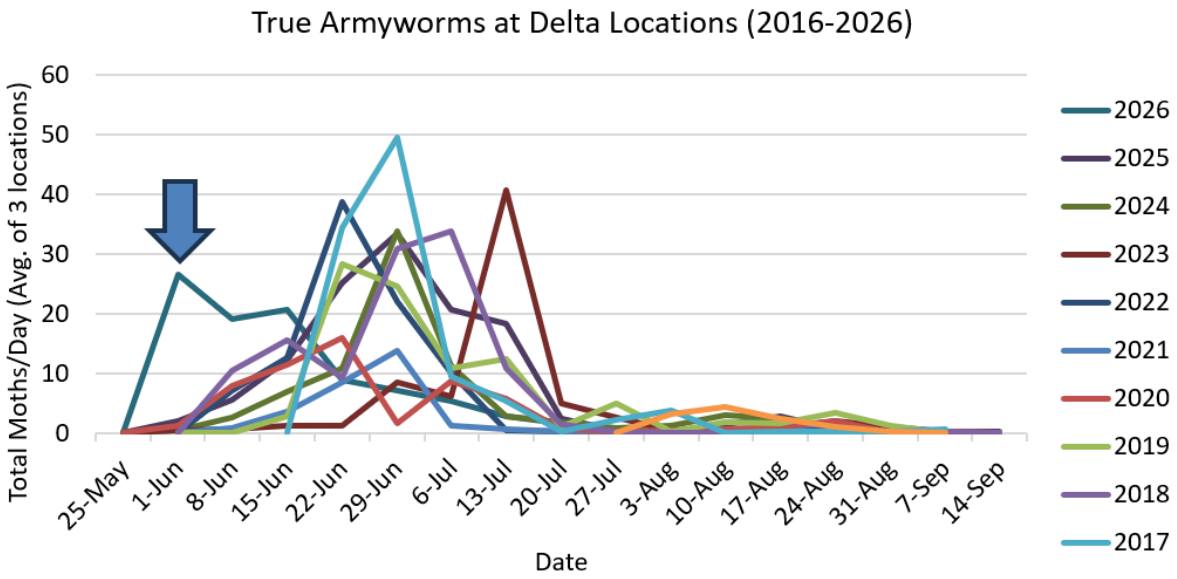


Figure 1. Delta true armyworm trap counts from 2016-2026. Monitoring data and field scouting observations should be used together to inform management.

Insect and disease research update for 2026

Luis Espino, Rice Farming Systems Advisor, UCCE Butte and Glenn

Bakanae: In the past few years, the presence of bakanae in rice fields had become more common. In most cases, the seed of affected fields had been treated with sodium hypochlorite (bleach). The presence of bakanae even after the seed had been treated made me wonder if the treatment was still effective. To answer this, I set up a greenhouse experiment using infested seed from one of the affected fields.

When seed was treated following the recommended guidelines, bakanae infection rate was reduced from 47% in untreated seed to 3% in treated seed. This is a 93% reduction, indicating that the bleach treatment is effective in controlling bakanae.

Stem rot vs fallow: Stem rot is a very common rice disease that can result in yield losses of up to 13%. Straw management plays a key role in the management of this disease. The pathogen survives in the straw, so burning or decomposing straw residue will help reduce the severity of the disease. Fallowing a field can also reduce stem rot severity. When fields are fallowed, straw degrades and pathogen survival is reduced. In recent experiments, I have seen significant severity reductions when rice is planted following a fallow.

Blast: This year was not a blast year. There were some infections, but I did not see any fields that were badly affected. In a variety trial near Willows, variety M-210 (with a blast resistant gene) was the only variety that did not develop any panicle blast. Varieties M-105 and M-211 had the highest panicle blast (39% and 14% respectively). On average, one application of azoxystrobin reduced panicle blast incidence by 56%.

Armyworms: I continue to monitor armyworms during the season using pheromone traps. The first flight was strong, and we did see some fields with high worm numbers in June, mostly on the west side of the Valley. The second flight was very small, and, correspondingly, we saw very few worms in the field during August. If you are interested in receiving updates on moth numbers during the season, subscribe to the alerts on our website (https://agronomy-rice.ucdavis.edu).

Mexican rice borer: You may have heard me talk about this insect in meetings. Currently, it is NOT present in the Sacramento Valley. It was found near Fresno a couple of years ago and I have been keeping an eye on it since then. This insect is a very bad pest of rice in the southern US, boring on the tillers and causing blanking. It is native of the Mexico-California border area. Working with other advisors, we have set up pheromone traps in the Sacramento and San Joaquin Valleys. It seems the insect is now established on the east side of Fresno, but it has not reached the commercial rice fields of Merced County. We'll continue to monitor to make sure we detect any expansion towards the rice area.

Pyrethroid detections in surface water monitoring highlight the importance of pesticide stewardship

Ian Grettenberger, Cooperative Extension Specialist, UC Davis
Craig Riddle, Industry Affairs Manager, California Rice Commission
Luis Espino, Rice Farming Systems Advisor, UCCE Butte and Glenn



Upper Colusa Basin Drain monitoring location

Recent monitoring results from California's rice water quality programs highlight that pyrethroids remain an area of concern for the rice industry, reinforcing the importance of responsible pesticide stewardship and integrated pest management that reduces the burden on single modes of action. While monitoring results for most pesticides have remained encouraging, repeated detections of pyrethroids in key drainage systems have prompted continued regulatory attention and could influence future management and reporting requirements for growers and pest control advisers (PCAs).

Monitoring conducted in 2026 through the California Rice Commission under the rice industry's Waste Discharge Requirements program found chronic pyrethroid triggers and associated toxicity at the Upper Colusa Basin Drain (CBD5) during early and late May and in early June 2026. In addition, sediment samples collected at Sacramento Slough (SSB) indicated toxicity in both samples tested. These findings follow similar detections reported in recent years that required development of a pyrethroid-focused Surface Water Quality Management Plan. The plan includes continued monitoring, grower outreach, and reporting efforts aimed at reducing off-site movement of pyrethroids into surface waters. Importantly, pyrethroids were the primary concern identified during the 2026 pesticide monitoring season. Monitoring results from the Rice Pesticide Program identified no thiobencarb detections above agricultural drain performance goals, while monitoring of benzobicyclon, its metabolite, and propanil found concentrations below or near the lowest U.S. EPA aquatic life benchmark thresholds.

For growers and PCAs, these results serve as a reminder that the use of pyrethroids carries regulatory considerations on top of those for pest management. Lambda-cyhalothrin remains an important and economical tool for management of arthropod pests in rice, but its potential for off-site movement and toxicity to aquatic invertebrates places it under regulatory scrutiny. Continued exceedances could result

in additional monitoring, reporting requirements, or other compliance measures within affected watersheds. Given this, adherence to pesticide labels and required water-holding periods (*do not release flood water within 7 days of an application*) and following recommended application practices remain critical for maintaining compliance and protecting access to these insecticides. Insecticide resistance considerations are also important; insecticide resistance threatens the viability of pyrethroids as tools for growers whose fields have tadpole shrimp populations that have lost their susceptibility to pyrethroid applications. Insecticide resistance is driven in large part by selection pressure, namely how much a given active ingredient is used (and its pattern of use). Importantly, integrating alternative chemistries and IPM approaches in pest management programs can help preserve pyrethroids through good stewardship, both in terms of regulatory considerations and insecticide resistance issues. For the industry, the recurring pyrethroid detections highlight a challenge that will require ongoing attention.



Seed production update

Emily Richter, California Crop Improvement Association

During the 2026 crop year, the California Crop Improvement Association (CCIA) inspected 24,907 acres under the Certified Rice Seed Program and 1,235 acres under the Rice Quality Assurance Program, for a combined total of 26,142 inspected acres. Total inspected rice acreage decreased in 2026 compared to approximately 28,500 acres in 2025.

Variety Summary: In 2026, a total of 33 rice varieties were produced through the certification program, including 12 short-grain, 16 medium-grain, and 5 long-grain varieties.

Among the Calrose varieties, M-210 had the largest acreage, with 4,918 acres, followed by M-105 at 4,798 acres, M-209 at 4,194 acres, M-206 at 3,853 acres, and M-211 at 3,101 acres. Acreage for M-206 and M-211 continues to decline, and both varieties are scheduled to be retired by 2029.

Other varieties with notable acreage in 2026 included Calmochi-203, with 1,252 acres; Koshihikari, with 1,019 acres; and M-401, with 854 acres.

Seed Field Inspections: Field inspections conducted by CCIA began during the second week of August and concluded during the third week of September. CCIA field inspectors walked a total of 368 fields during the 2026 crop year.

Foundation, Registered, QA1, and QA2 fields each received two inspections, while Certified and QA3 fields received one inspection.

A few fields in the Certified Rice Seed Program were rejected due to the presence of Type 1 weedy rice. Additional issues in the fields included weed pressure and the presence of off-types throughout the fields.

Overall, the 2026 crop year saw a decrease in inspected rice acreage compared to 2025, while production continued across 33 rice varieties. Calrose varieties remained a significant portion of certified rice seed production, with M-210, M-105, and M-209 accounting for the largest acreages. Field inspections conducted by CCIA helped ensure compliance with certification and quality assurance standards, while identifying issues related to Type 1 weedy rice, weed pressure, and off-types. Continued monitoring and adherence to program standards will remain important in maintaining the quality and varietal purity of California rice seed production in future crop years.

Nutrient products in California: 2026 field trial results

Sarah Marsh Janish, Rice Farming Systems Advisor, UCCE Colusa & Yolo

Foliar products applied mid-season are marketed more and more to California rice growers, with claims of better yield, stress tolerance, and grain quality. Trials conducted in California in the past and information available in published studies indicate that seaweed-derived products may be beneficial in rice production when growing conditions are less than optimal due to biotic or abiotic stress factors. In 2026, UC Cooperative Extension compared six commercial foliar products against untreated control plots in a replicated field trial in Colusa County. Most of these products are sold as foliar fertilizers or nutrients that contain seaweed, kelp, or humic acid, and one is marketed as a seaweed biostimulant. Foliar TRIGGRR is an EPA-registered plant growth regulator (Table 1).

Trial design: Each product was applied twice, at panicle initiation (PI) and at late boot to early heading (LB/EH), at the rates in Table 1. Treatments were arranged in a randomized complete block design with 4 replications. Plots were hand-harvested and threshed with a panicle hold-on thresher (ALMACO) and yields were adjusted to

14% moisture. Rice samples were milled to determine total milling yield and head rice yield.

Table 1. Foliar biostimulant and nutrient treatments in a 2026 California rice trial.

Product	Product type	Guaranteed analysis	Rate per application	Application timing*
Untreated	---	---	---	---
Foli-Gro Tidalwave	Foliar nutrient with sea plant extract	5-0-0 (0.35% Zn)	1 pt/ac	Panicle initiation (PI); late boot (LB)/ early heading (EH)
TEP Proven	Potash fertilizer with humic acid and kelp	0-0-5	1 gal/ac	PI; LB/EH
Foli-Gro Kilo	Potassium foliar fertilizer	0-0-24	1 gal/ac	PI; LB/EH
Foliar TRIGGRR	Plant growth regulator (EPA Reg. No. 51517-4	None (kinetin 0.0173%)	1 pt/ac	PI; LB/EH
Acadian	Seaweed extract biostimulant	0-0-5	4 pt/ac	PI; LB/EH
HeadSet	Foliar nutrient with seaweed	6-0-0 (5.42% Mg)	1 pt/ac	PI; LB/EH

Yield: No product's yield was significantly different from the untreated check (Dunnett's test, P ≥ 0.74). Plot-to-plot variability was large in this trial, especially in the control plot, which limited its ability to detect small yield differences. All plots, including the untreated control, produced high yields, with no significant differences between them (Fig. 1).

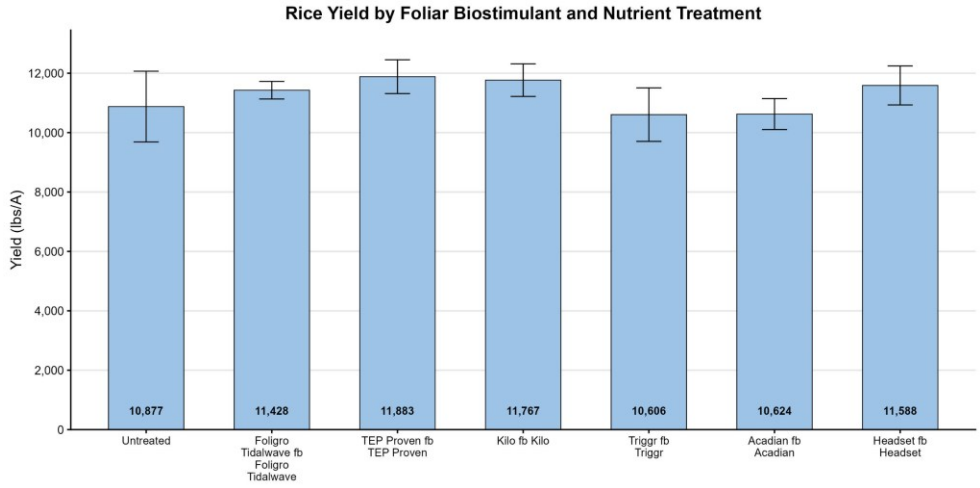


Figure 1. Mean rice yield (lbs/A, adjusted to 14% moisture) by foliar biostimulant and nutrient treatment, 2026. Error bars show ± one standard error. No treatment differed significantly from the untreated check (Dunnett's test, P ≥ 0.74).

Milling quality: Total milling yield ranged from 71.5 to 74.0% across treatments, and head rice yield ranged from 56.6 to 64.2% (Fig. 2). Neither differed significantly from the untreated check (Dunnett's test, P ≥ 0.11 for milling yield and P ≥ 0.07 for head rice).

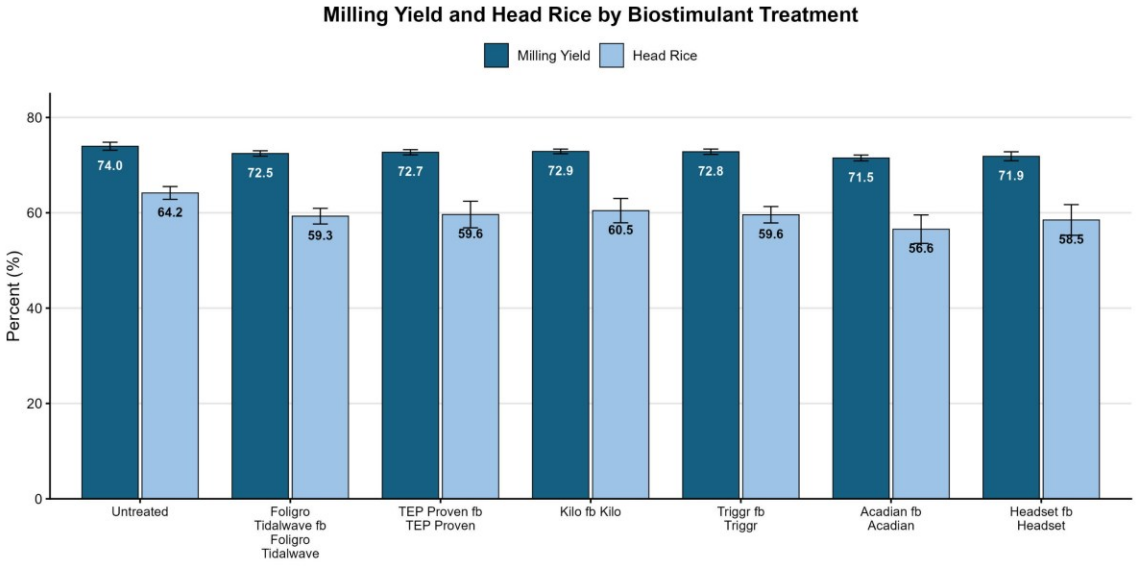


Figure 2. Mean total milling yield and head rice yield (%) by foliar biostimulant and nutrient treatment, 2026. Error bars show ± one standard error. Neither measure differed significantly from the untreated check (Dunnett's test; milling yield P ≥ 0.11, head rice P ≥ 0.07).

What it means for growers: In this one-site, one-year trial, none of the six foliar products improved rice yield or milling quality compared with the untreated check. A note of caution; these results come from a single location and year, and product performance may vary with field conditions, variety, and season. Growers considering these products may want to compare them against an untreated strip in their own fields. I'd like to repeat this trial in future years and would love to collaborate with growers in different areas to more robustly test these products.

I'd like to acknowledge Don Bransford, Colusa County Farm Supply, Wilbur-Ellis Colusa, and the UCCE Rice Team, without whom this work would not be possible.

Weed updates 2026

Whitney Brim-Deforest, Rice Advisor, UCCE Placer, Sacramento, Sutter-Yuba

Watergrass: Watergrass control continues to be an issue of concern for many growers. This year concluded the "Alternatives to Double Propanil" testing in grower fields. Over the past 5 years of testing (over about 20 fields) the data shows the best current foliar option to be:

- Regiment (bispyribac-sodium) followed by propanil spaced between 5 to 7 days apart (closer spacing has antagonism)

Other good options:

- Propanil followed by Regiment (bispyribac-sodium) spaced at 7 days (only timing tested)
- Propanil + Shark H2O (carfentrazone) tank mix
- Propanil + Clincher (cyhalofop)

Some new foliar products tried this year:

- Facet (quinclorac) – *NOT REGISTERED IN CALIFORNIA*. This product had poor control of our watergrass biotypes across the four locations tested
- RiceStar (fenxaprop) - *NOT REGISTERED IN CALIFORNIA*. This product had no control of our watergrass biotypes across the four locations tested.

We will keep working on watergrass control, but with more specific product testing with currently-registered products as well as those in the development pipeline, to try to refine timings, rates, and tank mixes, where possible.

White Water Fire: We want everyone to be on the lookout for this new species: white water fire (*Bergia capensis*). First found in Butte County in 2023, we found several more locations in late 2026, both in Butte County and Colusa County. We think that since it looks so similar to redstem/redberry, it is likely far more widespread than originally thought. It is currently not a rated pest in California, so there are no consequences for finding this weed in a rice field.

Our goal is to be able to document the extent of the infestation, so please keep your eyes out and report to your local Rice Farm Advisor in 2027 if you suspect it may be in your field.



Flowers of White Water Fire (left) and Redstem (right).

Weedy Rice: We had a short (one-week) Section 18 approval in 2026 for the use of SelectMax (clethodim) for weedy rice spot-spraying. If approved for 2027, we will have a new tool for weedy rice control. Spot-spraying will enable growers to control weedy rice plants without resorting to hand-pulling and/or cutting off seed heads, both of which are costly and time-consuming. This will be especially helpful to those growers with larger infestations, as rogueing may be impractical over larger areas.

Reports of new weedy infestations have continued to decrease over the past several years. Many suspected infestations were submitted in 2026, but the vast majority were either off-types (varietal contamination, genetic variability of the planted variety) or volunteer rice plants. There were a large number of volunteer rice plants in many fields this year, likely due to the spring rains. Only one newly infested field was found in 2026, a Type 1 field.

Wingleaf Primrose Willow: In the past few years, wingleaf primrose willow (*Ludwigia decurrens*) has been spreading throughout Butte County, and has now been found in Placer County, Shasta County, and Tehama County. Extensive surveying in 2025 and 2026 found it along irrigation canals, rivers, and creeks as well as in rice fields. As a reminder, it is an A-rated pest, and a P-rated seed pest, meaning that in a seed production field, the crop cannot be harvested for seed.

We have been working closely with USDA-ARS scientist Jens Beets on herbicide control options for aquatic systems, and we have been extending the information to irrigation districts, the Department of Water Resources, the Division of Boating and Waterways, and other relevant stakeholders.

We realize that this weed will not be controlled by rice growers alone, so the outreach to other stakeholders is key to trying to get this weed under control. If you suspect you have seen it in an irrigation canal or in your field, please give your local Rice Farm Advisor a call.

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