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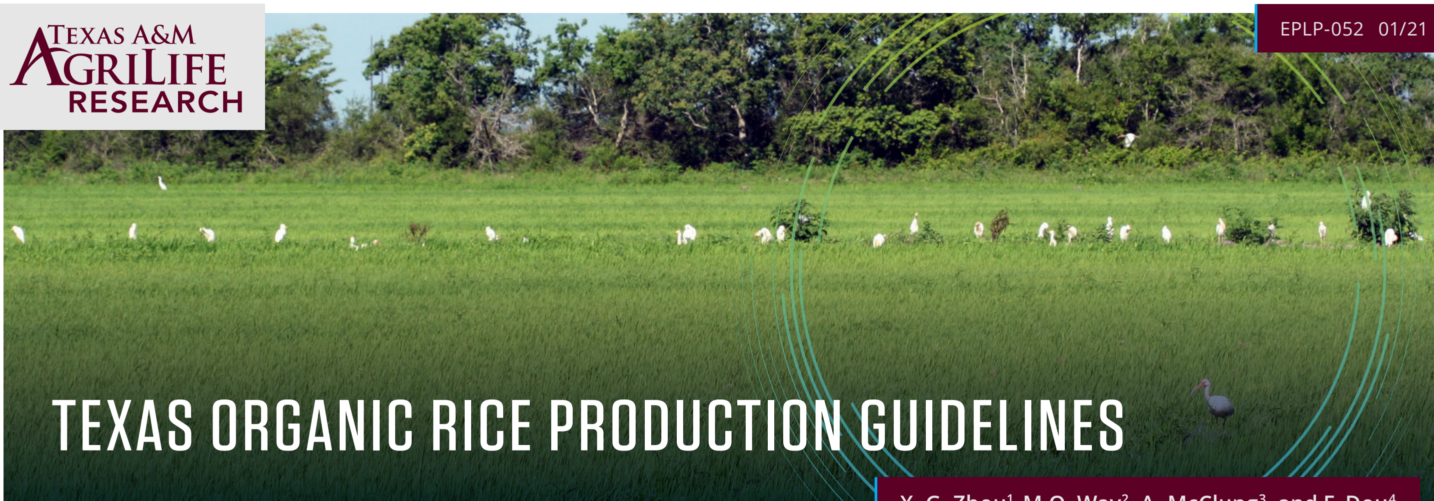

TEXAS ORGANIC RICE PRODUCTION GUIDELINES

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Texas organic rice acreage has steadily increased over the past decade, driven by increased market demand. Since 1995, organic rice acreage has increased in the U.S. by almost six-fold, with a majority of acreage being grown in the Southern U.S. The acreage in Texas alone reached more than 17,000 in 2020.

Organic rice (Fig. 1) is produced using methods that differ from those employed in conventional rice production. Organic production systems avoid the use of synthetic fertilizers and pesticides applied in conventional rice production. Instead, organic production relies on animal manures, crop residues, green manures, tillage, water, and other biological measures to maintain soil health and supply plant nutrients. Any chemical, fertilizer, or seed treatment that has been certified by the Organic Materials Review Institute (OMRI) can be used for organic production. Growers need to adopt viable farming practices and technologies for rice production under organic management systems.

Figure 1. A commercial organic rice field in Texas *(photo by X. G. Zhou)*.

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There is very limited information available on organic rice production and management. Therefore, this first edition of organic rice production guidelines was developed to help farmers grow rice organically. This version addresses cover crops, variety selection, seed treatments, irrigation management practices, nitrogen management, disease management, and insect pest management. The guidelines are expected to be updated and expanded when new research results and findings are available in the future.

COVER CROPS

Cover crops can provide multiple potential benefits to soil health and rice crop production. They can also improve soil (i.e., physical) and biological properties, increase soil organic matter, improve soil water availability, supply nutrients to the subsequent rice crop, and suppress weeds. The selection of cover crops that establish and grow well under local environments is the key to utilizing these benefits. Annual ryegrass, crimson clover, and white clover are among the fall-planted cover crops that grow well in Texas. They can be planted in mid- to late-October and produce sufficient above-ground biomass in the following spring for incorporation as green manure or be harvested for forage or grazing. Sunn hemp is a good fall cover crop that can be planted in mid-August and is able to produce large amounts of biomass in 45 to 60 days. Sudangrass is a fast-growing summer cover crop with an extensive root system that thrives in summer heat and drought.

Cover crops grown for incorporation as green manure should be terminated prior to forming seed to add to the soil's greatest nutrient value. Terminated cover crops should be incorporated into the soil at least 2 to 4 weeks before planting the rice crop to allow the residue enough time to breakdown. In some cases, straighthead—a physiological disorder of unknown cause—has been observed when rice is planted too early after a green manure crop. Studies conducted at the Texas A&M AgriLife Research Center at Beaumont have shown that these cover crops can supply 60 to 108 pounds N per acre as well as other nutrients to the subsequent rice crop and can suppress weeds as well.

VARIETY SELECTION

In organic production systems, the challenges to producing an economically successful crop are quite different than in conventional systems. Research has shown that choice of cultivar is one of the most important decisions in determining performance under organic management. There are many different target markets, including standard milled long or medium grain rice, brown rice, aromatics, or rice for special purposes like rice flour or colored bran rice. Understanding the preferences and identifying outlets for specific markets may offer added economic opportunities for growers. Due to the limitation of using many seed treatments in organic production, varieties with excellent seedling vigor are important for early stand establishment, which leads to an early flood, resulting in better weed control.

Even with excellent seedling vigor, it is recommended to increase seeding rates by 1.5-fold to assure good stands, as stand losses due to pathogens can occur using untreated seeds (see Seed Treatments below). With most organic management systems, soil nitrogen is generally not as high or as readily available as in conventional systems. Consequently, rice varieties do not grow as tall and can be harvested about 10 days earlier. They do not have problems with lodging, which may offer broader options for variety selection than under conventional systems. Diseases associated with lower nitrogen inputs, such as narrow brown leaf spot (caused by *Cercospora janseana*) and brown spot (caused by *Cochiobolus miyabeanus*), are more common in organic than in conventional systems—whereas diseases like rice blast (caused by *Magnaporthe oryzae*) and sheath blight (caused by *Rhizoctonia solani* AG1-1A) are less common. Thus, varieties that have early vigorous growth; are late maturing and taller; have high tillering capacity and rapid canopy closure to compete with weeds; and are resistant to narrow brown leaf spot and brown spot, may be the best choices. Varieties like Jasmine 85, Rondo, Tesanai 2, Jupiter, and hybrids are well suited for organic production systems, although they differ in which markets they are best suited for.

Rice varieties have different yield potentials under organic versus commercial production systems. Cultivars such as Tesanai 2, Rondo, and hybrids have high yield potential, as demonstrated in a research plot trial conducted in Texas (Fig. 2). Based on a 5-year (2015 through 2019) organic commercial production survey, the average yield of XL723 (a popular hybrid variety in Texas) was 4,094 pounds per acre, while Presidio's yield (a popular inbred variety) was only 2,452 pounds per acre. The selection of high yielding rice varieties with tolerance to weeds and diseases is the key to successful organic rice production.

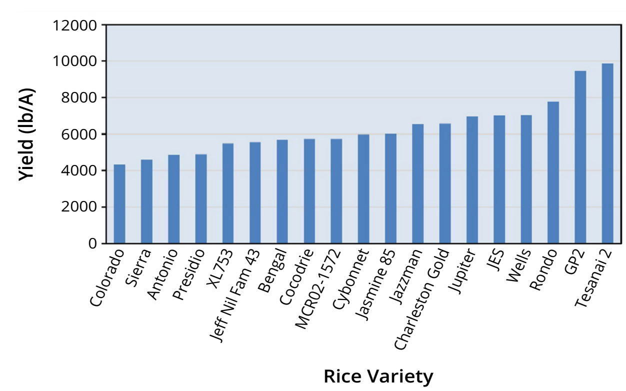

Figure 2. Yield performance of 19 rice varieties and germplasm lines grown organically in Beaumont, Texas in 2015 and 2016.

SEED TREATMENTS

Good and early stand establishment is a critical factor in achieving high yield and rice quality under organic production systems where weed pressure is always high. Seed treatment prior to planting can be an effective option to improve stand establishment. Plant growth regulators are primarily used to promote germination and enhance seedling growth and vigor, resulting in a better stand and earlier crop canopy coverage, which provides conditions to suppress the weed's growth. Gibberellic Acid (GA), available as an organic certified agent, is the most common plant growth regulator for rice seed treatment. GA promotes rice seedling emergence by enhancing the elongation of the mesocotyl. Studies in Texas have shown that seed treatment with GA increases stand density by 21 percent and plant height at 2 weeks after planting by 12 percent under organic production.

IRRIGATION MANAGEMENT PRACTICES

Most organic rice farmers in Texas practice a "pinpoint flood" type of irrigation. Basically, paddies are flooded, then rice seed is aerially-broadcast into the paddies, followed by drainage of the paddies for a few days. Farmers must scout very carefully during this time to make sure the seedlings do not dry out and die. Hot, windy days can quickly dry out these seedlings. The reason for the temporary draining of paddies is to allow seedlings to anchor in the water-saturated soil and prevent them from drifting in the flood. Windy conditions can uproot and/or move seedlings and push them downwind to the fields' levees and edges. Some California farmers who water-seed remove the uprooted seedlings (e.g., using a pitchfork) along the downwind edges of fields.

These floating masses of seedlings can prevent sunlight from penetrating the water to allow photosynthesis to proceed for the remaining anchored seedlings. In the past, when water-seeding was common in Texas, some farmers would form "grooves" in the dry paddies by using a heavy metal cylinder ("groover") pulled by a tractor. The cylinder has welded ridges around the circumference. These ridges are spaced regularly (approximately 6 inches apart) around the cylinder. When pulled by a tractor, the ridges form shallow furrows in the dry soil. Then, when flooded and aerially planted, seeds tend to accumulate in these furrows, which discourages seedling drift. Thus, this groover can help establish a uniform stand. Once seedlings are anchored in the soil, the flood is re-applied and maintained until close to harvest.

A good way to help prevent drying out of seedlings is to water-level ("mud-up") in the flood. A tractor rapidly pulling a pipe harrow ("snake killer") or disk in the flood tends to level the paddies' soil surface and create a muddy flood full of suspended soil particles. If the paddies are aerially seeded at this time, the soil in suspension settles over the seeds and helps to keep them from drying out.

It is a good practice to "pre-sprout" the seed, which means dry seed in "supersacks" is placed in a tank of water until the seeds begin to sprout—at which time the sacks are lifted out of the water and drained for a short time. The pre-sprouted seed is then placed in an aircraft to be aerially planted. This gives the rice seed a "jump" on weed seeds because the germination process has already begun for the rice crop.

NITROGEN MANAGEMENT

Soil fertility is a key component in producing high rice yields, which makes organic farming systems economically viable. Essentially, all rice in the U.S. is produced under flooded conditions to control weeds and stabilize yields. Nutrient availability, especially nitrogen (N) supply, is very different under anaerobic (i.e., flooded) conditions typical of rice production, as compared to dryland or row cropping systems. Soil ammonium (NH_4^+) is the main form of N for crop uptake. In general, soil indigenous N supply cannot meet the demand to approach yield potential. To meet N needs, applications of soil amendments are generally recommended. However, most of the available N in these materials is in an organic form, which means N has to be released through a decomposition process. Soil amendments are generally incorporated before planting. A field trial indicated that a single application of soil amendments, Nature Safe or Rhizogen, at the four-leaf stage could significantly increase rice grain yield (Table 1)—either soil amendment had the same effect on yield improvement. Rice grain yield improved with an increase in N application rate up to 130 pounds N per acre.

Table 1. Effect of soil amendment and rate of organic fertilizers Nature Safe and Rhizogen on rice grain yield in Beaumont, Texas, 2011.

NITROGEN RATE (LB./A)	YIELD (LB./A)	
	NATURE SAFE	RHIZOGEN
0	5,966 (700)[c†]	5,966 (700)[c]
70	7,251 (680)[b]	7,124 (544)[b]
130	7,649 (545)[ab]	7,540 (586)[ab]
195	7,879 (502)[a]	8,307 (580)[a]

†Means (standard deivations in parentheses) in a column followed with the same letter are not statistically different at $p = 0.05$ by Tukey's multiple comparison test (TukeyHSD).

DISEASE MANAGEMENT

Synthetic fungicides and bactericides are not allowed for use to control diseases in organic rice. Any chemical or seed treatment certified by the OMRI can be used for organic production. These practices result in significant changes in the incidence and severity of diseases and their management.

Compared to conventional rice, organically produced rice is more vulnerable to seedling diseases (Fig. 3) (caused by *Rhizoctonia solani*, *Sclerotium rolfsii*, *Fusarium* spp., *Pythium* spp., etc.). Other diseases such as narrow

Figure 3. Seedling damping off caused by *Rhizoctonia solani* AG-11 *(photo by X. G. Zhou)*.

brown leaf spot (Fig. 4) and brown spot (Fig. 5) are common and can be severe in organic rice. This is partially due to N deficiency, as a result of using slow-release green manure crops and organic fertilizers—or the application of organic fertilizers at a rate lower than recommended. Straighthead (Fig. 6) is more likely to occur in no-till organic production systems involving direct seeding of rice into a cover crop. Rice grown in flooded (i.e., anaerobic) soils with an abundance of decaying crop residues is more susceptible to straighthead.

Figure 4. Narrow brown leaf spot *(photo by X. G. Zhou)*.

Figure 5. Brown leaf spot *(photo by X. G. Zhou)*.

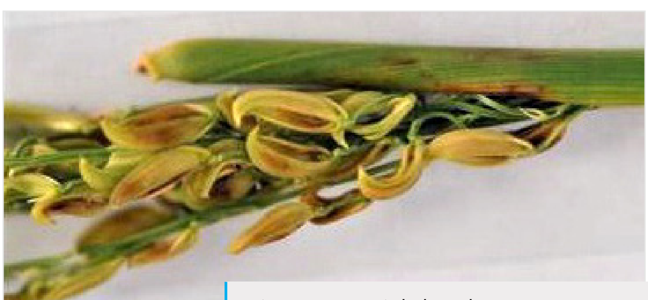

Figure 6. Straighthead *(photo by X. G. Zhou)*.

Other diseases that may cause significant damage to organic rice under favorable disease development conditions include sheath blight (Fig. 7), rice blast (Figs. 8 and 9), sheath rot (Fig. 10) (caused by *Sarocladium oryzae*), kernel smut (Fig. 11) (caused by *Telletia barclayana*), false smut (Fig. 12) (caused by *Ustilaginoidea virens*), bacterial panicle blight (Fig. 13) (caused by *Burkholderia glumae* and *B. gladioli*), black kernel (Fig. 14) (caused by *Curvularia lunata*) and pecky rice (caused

Figure 7. Sheath blight *(photo by X. G. Zhou)*.

Figure 8. Leaf blast *(photo by X. G. Zhou)*.

Figure 9. Neck blast *(photo by X. G. Zhou)*.

Figure 10. Sheath rot *(photo by X. G. Zhou)*.

by various fungi, bacteria, and insect injury). Leaf smut (caused by *Entyloma oryzae*), and stackburn (caused by *Alternaria padwickii*), are usually minimal in Texas. Symptoms of all these diseases in organic rice are similar to those in conventional rice.

Options for the management of diseases in organic rice are limited. However, damage from diseases can be reduced by implementing management practices, including varietal selection and proper cultural practices.

Figure 11. Kernel smut *(photo by X. G. Zhou)*.

Figure 12. False smut *(photo by X. G. Zhou)*.

Figure 13. Bacterial panicle blight *(photo by X. G. Zhou)*.

Figure 14. Black kernel *(photo by X. G. Zhou)*.

Selection of disease resistant varieties with high yield potential is the most effective method to minimize damage caused by diseases in organic rice production systems. Varieties differ in their resistance to diseases. For example: Charleston Gold, Tesanai 2, Jasmine 85, Rondo, Jupiter, and hybrids (XL723 and XL753) are resistant to narrow brown leaf spot, while varieties such as Sierra, Presidio, Jazzman 2, Mermentau, and Cocodrie are susceptible (Fig. 15). Cocodrie, Antonio, and Colorado are very susceptible to straighthead, while other varieties such as Tesanai 2 and Rondo are resistant and have the highest yield potential when grown in an organic production system (Fig. 16).

Damage from diseases can be reduced by implementing proper cultural practices. The use of clean, pathogen-free seed is an effective practice to control diseases. Planting rice at recommended dates also helps reduce certain diseases. Planting too early can result in irregular and thin stands caused by seedling diseases associated with cool soil temperatures early in the growing season. Planting too late usually results in severe foliar diseases, including narrow brown leaf spot, brown spot, and kernel smut due to increased pathogen inoculum late in the growing season. Proper

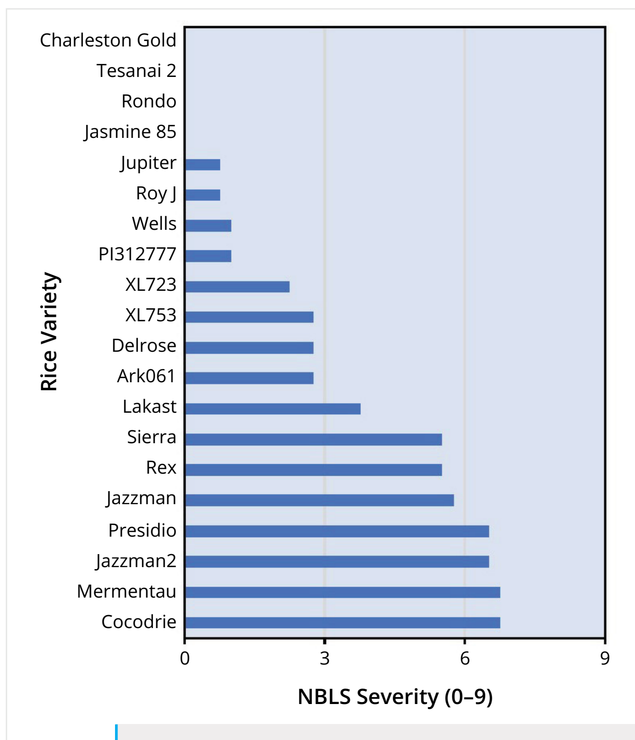

Figure 15. Average narrow brown leaf spot (NBLS) severity of 20 rice varieties and germplasm lines grown organically in Beaumont, Texas in 2017 and 2018. NBLS rated on a scale of 0 to 9 where 0 = no disease and 9 = most severe.

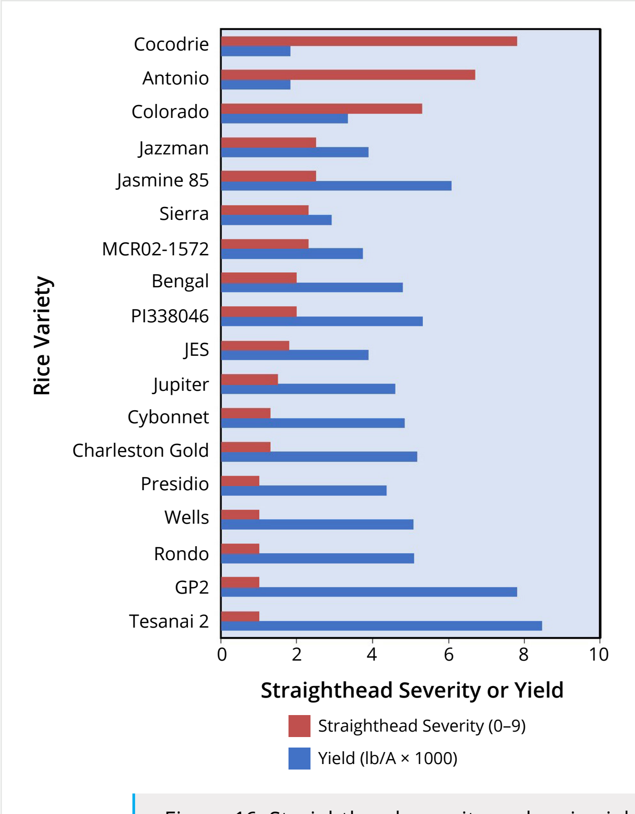

Figure 16. Straighthead severity and grain yield of 18 rice varieties and germplasm lines grown organically with a no-till white clover cover crop in Beaumont, Texas, in 2010. Straighthead rated on a scale of 0 to 9 where 0 = 0 percent panicles affected and 9 = 100 percent panicles affected.

Figure 17. Water-seeded field with poor stand due to rice seed midge *(photo by M. O. Way)*.

Figure 18. Rice seed midge adult (magnified) *(photo by J. K. Clark)*.

Figure 19. Preserved rice seed midge larvae (magnified) *(photo by M. O. Way)*.

timing and rate of organic fertilizers, especially nitrogen, can reduce narrow brown leaf spot and other diseases. Damage from diseases can also be decreased by maintaining good rice conditions by crop rotation, land leveling, soil preparation, and water management. Rice should not be planted directly into no-till fields with an abundance of decaying crop residues, which may decrease stand and induce straighthead.

Figure 20. Rice seed midge damage to rice seed *(photo by J. k. Clark)*.

INSECT PEST MANAGEMENT

Rice Seed Midges

Common pests of water-seeded rice (i.e., organic rice) are rice seed midges, causing poor stand (Fig. 17), in the fly Family Chironomidae (Figs. 18 and 19). There are a number of species of this aquatic insect whose larvae attack germinating rice seeds and young seedlings (Fig. 20). The adults form inverted triangular mating swarms over stagnant or slow-moving water (e.g., flooded rice paddies, canals, and drain ditches). The females lay ribbon-like egg masses on the surface of the water (Fig. 21). The eggs hatch and the small larvae swim down to the mud surface where they form mud tubes that look

Figure 21. Rice seed midge egg masses laid on surface of water *(photo by M. O. Way)*.

Figure 22. Rice seed midge larval mud tubes on bottom of drained paddy *(photo by M. O. Way)*.

like mud-colored spaghetti noodles, from which they feed on rice sprouts (Fig. 22). They can also hollow out germinating rice seeds. Thus, they are stand reducers (Fig. 17). The best management practices to control the larvae are: 1) plant pre-sprouted seed; 2) employ a pinpoint flood; 3) increase seeding rate; and 4) plant immediately following flood.

Rice Water Weevil

The main pest of organic rice is the rice water weevil (*Lissorhoptrus oryzophilus*) (Fig. 23). This insect is native to southeast Texas and also attacks conventional rice. Adult females and males feed on the foliage of rice plants. The resulting characteristic feeding scars are parallel to the leaf veins, elongated, and are white or clear (Fig. 24). The adult female lays eggs underwater in the culm or coleoptile of the rice plant. Eggs hatch and larvae move to the roots where they feed and cause severe damage in the form of stunting and yield loss (Fig. 25). The first generation larvae cause the most damage, but the insect can produce multiple generations per year. Pupae are formed on the roots in mud cocoons that resemble small footballs (Fig. 26). Selected botanical insecticides have been evaluated as well as commercial parasitic nematode products and formulations of *Bacillus thuringiensis* with little success. Thus, management is based on cultural and agronomic practices.

Figure 23. Adult rice water weevil *(photo by J. K. Clark)*.

Rice water weevil adults prefer to attack thin stands of rice. Therefore, a good management practice is to increase the seeding rate. A common seeding rate for organic rice in Texas is 100 pounds of seed per acre or more. In fact, water-seeding rates in California can approach 200 pounds of seed per acre. A high seeding rate can increase rice plant's density, which can "dilute" populations of rice water weevil and damage. A shallow flood can also discourage oviposition since female weevils lay eggs underwater. Research at Louisiana State University (LSU) has shown that weevils lay more eggs in a deep versus a shallow flood (i.e., more oviposition sites in a deep flood). A deep flood also delays rice from emerging through the water, which results in elongated, spindly, and stressed rice. This

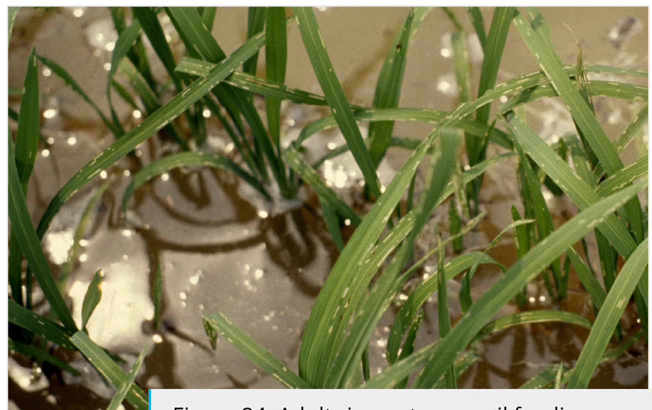

Figure 24. Adult rice water weevil feeding scars on leaves of young rice *(photo by Mo Way)*.

Figure 25. Severe root pruning by rice water weevil larvae *(photo by Mo Way)*.

Figure 26. Rice water weevil larvae and pupa on rice roots *(photo by J. K. Clark)*.

discussion leads to the discernable conclusion that precision-leveled fields can suffer less rice water weevil damage than fields with contour levees. Fewer levees and shallower, more uniform floods are associated with precision-leveled fields. Fewer levees mean fewer borrow ditches where rice water weevils are abundant due to the deeper flood and thinner rice stands.

Research has shown that medium grain varieties, like Jupiter, tolerate damage to the rice water weevil. In general, medium grain varieties develop a robust root system. Although populations of the weevil can be high on medium grains, in general they do not show as great a yield loss to the weevil as some other varieties. Therefore, organic rice farmers should plant varieties that emerge quickly through a flood, develop a strong root system, and tiller profusely to minimize rice water weevil damage. Some organic rice farmers on the west side of Houston plant hybrids at a low seeding rate, but these farmers do not employ water-seeding. Rather, they prepare a clean seedbed and plant into moisture. They do not flush and do not apply a flood until rice emerges through the soil. This logically delays rice water weevil oviposition, which is a good cultural control tactic.

Research has also shown that an average of one larva pre-core (4-inch diameter by 4-inch deep plug of muddy soil and rice plant(s)) reduces yield by 75 pounds per acre in conventional rice. This relationship is linear. Thus, it behooves organic rice farmers in Texas to do as much as possible to manage this pest. Farmers in the past have drained paddies to control the rice water weevil, but this practice is not recommended because drainage results in loss of fertilizer, increase in weed pressure, and favors blast development. In addition, the soil must dry to cracking to kill immature rice water weevils. Frequent spring/summer rain showers in southeast Texas can prevent paddies from drying sufficiently to cause death of immatures.

Fall Armyworm

The fall armyworm (*Spodoptera frugiperda*) is a moth that lays eggs at night in masses on rice foliage. The eggs hatch and the larvae (armyworms) consume rice leaves (Fig. 27). Damage can be localized due to these egg masses, or can be spread throughout fields since moths are strong fliers. After passing through 5 to 6 instars (each successive instar is larger and consumes more foliage), the larvae pupate. Late instar larvae have an inverted "Y" on their head capsule (Fig. 28),

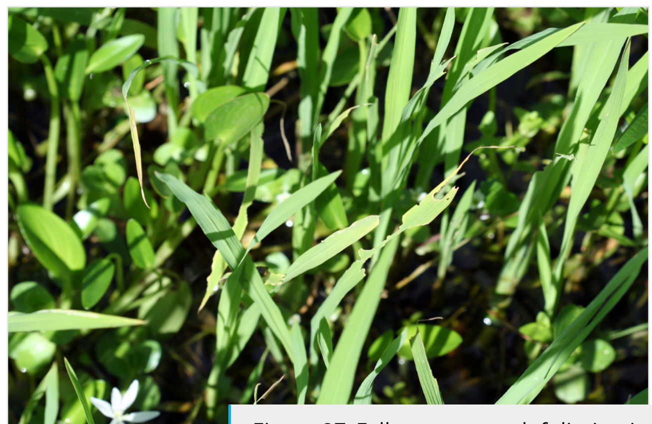

Figure 27. Fall armyworm defoliation in organic rice field *(photo by Mo Way)*.

Figure 28. Late instar fall armyworm larva; note inverted "Y" on head capsule *(photo by Mo Way)*.

making this species easy to identify. Normally, pupation takes place in the ground, but if rice is flooded, pupae cannot survive, and the generation is "short-circuited." Furthermore, the fall armyworm has a wide host range. Thus, it can build up populations on weeds growing in or around rice fields. The larvae can attack rice at all stages of growth. AgriLife researchers have observed larvae attacking conventional rice from emergence to tillering. In conventional rice, larvae can also attack the ratoon crop.

The best management tactic for the fall armyworm involves scouting for these insects from emergence to harvest. Some farmers rely on cattle egrets or ibises in their fields to alert them to a fall armyworm problem. The birds relish the larvae, therefore they represent a natural control agent (Fig. 29). However, by the time birds are discovered, extensive damage may have occurred. Research in California on a similar species (i.e., true armyworm) found that 20 percent defoliation of rice around panicle differentiation was the economic injury level. Early detection of populations is key to minimizing damage. Thus, the best control method is to raise the depth of the flood to drown small larvae. The later the infestation is detected, the more damage—as the larvae get larger and consume more foliage. In addition, a deeper flood forces larvae to the top of plants, which exposes them to harsh weather and natural predators such as paper and mud dauber wasps, as well as a parasitic wasp (*Cotesia* spp.). This small, black wasp lays an egg in the fall armyworm larva, which is consumed by the developing parasite larva. A white, silken cocoon indicates the presence of this biocontrol agent (inside is the pupa of the wasp) (Fig. 30).

A formulation of *Bacillus thuringiensis* is labeled for organic rice production, but AgriLife researchers have not evaluated this product. However, to be effective, the product must be applied when larvae are small. Larvae must ingest the product to be effective. Thus, mortality is not immediate. Another disadvantage of this product is its relatively high cost. Furthermore, applications must be timed to avoid wash-off due to frequent rain showers during the growing season in southeast Texas.

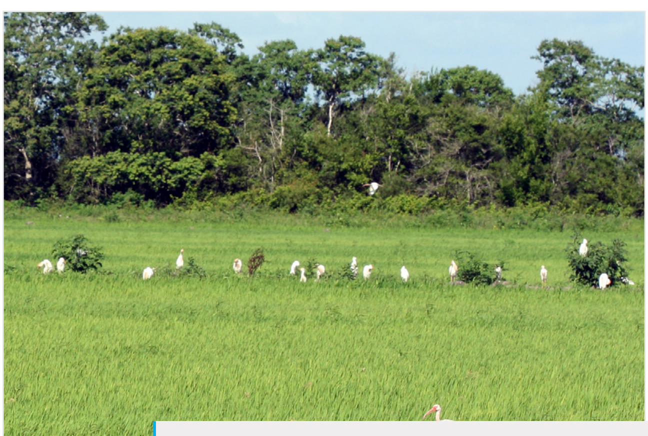

Figure 29. Ibises feeding on fall armyworms in organic rice field *(photo by Mo Way)*.

Figure 30. Cocoon of Cotesia sp. parasitic wasp of fall armyworm *(photo by Mo Way)*.

Rice Stink Bug

The rice stink bug (*Oebalus pugnax*) is another serious pest of rice, but the damage is usually associated with quality and not quantity (i.e., yield). AgriLife researchers have not observed yield losses due to field populations of this grain-sucking insect (Fig. 31). However, farmers' rice is discounted if "peck" is above 1.5 to 2 percent by weight (Fig. 32). Peck is a discoloration of the grain caused by feeding of the rice stink bug, which

Figure 31. Rice stink bug nymph *(photo by Mo Way)*.

Figure 32. Pecky rice *(photo by J. Saichuk)*.

injects saliva into the grain with its piercing-sucking mouthparts. This feeding, combined with actions of surrounding microorganisms, results in peck. There are many grass hosts, besides rice, of the rice stink bug. Thus, controlling, removing, or mowing grasses in and around rice fields can perhaps delay or reduce rice infestations. In addition, the most susceptible stages of rice stink bug damage are heading and milk. Also, be mindful of the surrounding crops and stages of growth. Rice stink bugs frequently build up on adjacent sorghum and then move in mass to rice fields upon harvest of the sorghum crop.

Farmers can employ other cultural/agronomic practices to minimize rice stink bug damage. The best probable tactic is to strive to produce a high-yielding crop that tends to dilute out the damage by the rice stink bug. More grain in a field means more possible feeding sites for the insect. AgriLife researchers have not observed higher populations associated with higher yielding rice fields, therefore it seems probable that more grains in a field dilute rice stink bug damage. Another agronomic tactic is to produce a crop that matures quickly and uniformly. Research in Arkansas showed varieties exhibiting less time from heading to maturation were less susceptible to rice stink bug damage. For instance, the time from heading to maturation is typically shorter for long grains than medium grains. Another good practice is to harvest as soon as the rice is sufficiently mature. Do not delay harvest once the crop reaches optimum grain moisture.

AgriLife researchers also recently evaluated formulations of pyrethrins and azadirachtin, which are labeled for organic crop production. Contact activity against rice stink bug adults showed some mortality (Fig. 33). In addition, AgriLife researchers in 2020 evaluated a botanical insecticide produced by Arkion LifeSciences. Preliminary experiments revealed excellent contact activity against rice stink bug adults. More detailed evaluations will be conducted in 2021.

Figure 33. Rice stink bug adult *(photo by K. Tindall)*.

OTHER MINOR PESTS

Various species of aphids and thrips attack organic as well as conventional rice, but researchers have never observed these insects causing significant damage in organic rice. An exotic pest of Texas rice is the South American rice miner (*Hydrellia wirthi*), which has only been observed attacking conventional rice. This species currently is not a significant pest of rice. A related species, the rice leaf miner (*H. griseola*), was first discovered attacking conventional rice in Texas in the 1980s when water-seeding was common. This insect could be somewhat problematic for Texas organic rice growers in the future.

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ADDITIONAL RESOURCES:

Updates of the USDA NIFA OREI project (2015-51300-24286) available at: *https://www.organic-center.org/site/sustainable-and-profitable-strategies-ipm-southern-organic-rice*.

- Texas Rice Production Guidelines available at: *https://beaumont.tamu.edu/eLibrary/ExtensionBulletins_default.htm*.