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The United State's rice industry is extremely important for maintaining healthy wetlands in our great country. Rice growing has a great impact in the conservation of many bird species that are losing their natural habitat. In addition, rice farming provides an unique ecosystem that is suitable for replacing the disappearing wetlands in America. It has also been shown by numerous studies that rice farming plays an important role in removing harmful herbicides from the water that runs through the rice fields, thus making cleaner water for our American wetlands.

The United States rice industry is a thriving agricultural division. According to the U.S. Rice Federation, over 90% of the rice consumed in America is also grown here. Many types of rice are grown in America including short, medium and long grain rice. The U.S. rice industry supplies about 15,000 jobs to Americans. The members of the rice industry work with local farmers to create a healthy environment that is beneficial to both wildlife and people.¹

The rice fields throughout America provide an important habitat for migratory waterfowl species that have been losing their natural wetlands through industrialization. During the winter, migratory birds move from the northern regions of the United States to the warmer states such as Texas, Arkansas, Louisiana, California, Mississippi, and Missouri. However, a large loss of natural habitat has created a huge problem for these migratory species. The rice industry is providing thousands of new acres of wetlands for these birds to inhabit during the winter. A practical example of how this positive impact is in the Central Valley of California. This region has always been an important area for migratory waterfowl such as egrets, herons, geese, swans, and many species of ducks. In

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the past there have been up to 40 million of these migratory species that move to the Central Valley. However, only a meager 5% of its original wetlands are still around to provide habitat. The loss of wetlands includes marshes and vernal pools. Since 1939, a 52% increase in rice growing has translated into approximately 224,100 acres of wetlands for birds in the mid-1980's.² Ducks Unlimited, the world leader in wetlands conservation, has coupled with rice farmers in California to flood about 200,000 acres of rice fields each winter for the purpose of providing homes for the many waterfowl bird species. This is especially important work because over 60% of Pacific waterfowl species migrate to California's Central Valley according to Ducks Unlimited.³

Rice cultivation creates a natural ecosystem in which the animals and the rice farmers work in cooperation in to create an environment in which both benefit. For the five months during the year in which the rice fields are flooded, many different birds and animals have a wetland habitat to live in. During this time, the birds and mammals are fertilizing the newly planted fields with their droppings. After rice harvest, there can be up to 200 pounds of leftover rice that has fallen in the fields.⁴ The many waterfowl species aid in the cleanup process by eating this fallen rice. After harvest, there is also thousands of pounds of leftover rice straw. Rice straw is very tough and contains much silica. Some farmers consider disposing of this straw by burning. But this process puts an acrid smoke into the atmosphere. The by-products of rice straw burning put many potentially harmful pollutants such as carbon monoxide and sulfur dioxide. The California Air Recourse Board put restrictions on rice burning letting farmers only burn about a quarter of their rice straw per acre.⁵ So many farmers decided to use faming

techniques in which they push the leftover rice straw into the fields with a cage roller. The winter flooding creates an environment in which the rice straw can decompose easily. The birds and mammals then help to further the decomposition by pushing the straw further into the ground. This process takes advantage of the birds and mammals within the wetland ecosystem to create a solution for rice straw disposal that is completely natural and beneficial to the environment. The wetlands provided by rice farming and good farming procedures, have made an ecosystem that is both beneficial for farmers and animal inhabitants.

There is evidence to suggest that rice cultivation effectively removes much of the artificial herbicides used in the growing process. The rice farmers get special permits to allow them to draw water from streams, wells, and reservoirs. To control weeds in these fields, rice growers use natural and artificial means to control the weeds within the rice paddies. The wetlands environment that the rice farmers create and utilize have a very useful advantage-herbicides added to the fields tend to break down easily in the wet environment. This is mainly accomplished by biodegradation. Microbes and chemicals in the water rapidly break down the organic chemicals found in many herbicides especially in ideal conditions with warm water. In fact up to 90% of registered herbicides can be removed in 7-10 days in some rice fields.

Examples of cleaner water from rice cultivation are not hard to find. In 1980-1983, the DPR was concerned because a large amount of freshwater game fish were dying in drain waters of the Sacramento Valley. Authorities in the Sacramento Valley then conducted tests that found a high concentration of certain chemicals from herbicides such as

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thiobencarb. With help from rice farmers, who took advantage of the rice fields natural biodegradation of chemicals, levels of thiobencarb and molinate in the Sacramento River have been reduced from 40,000 lbs. in 1982 to 125 lbs in 1992. This is a huge accomplishment and proof that good rice cultivation techniques pay dividends for a more healthy wetlands environment in the United States.⁷

The American rice industry has a very large impact on the conservation of our wetland habitats. The loss of wetlands in the United States has caused great concern by many wildlife experts. To counter that loss rice farming has provided an unique system that creates a mutually beneficial partnership between the animals of the rice fields and the farmers. By protecting our wetlands and utilizing farming techniques that promote a healthy ecosystem, rice farmers are truly leading America in wetland conservation.

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