



Audubon



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Waterbirds on Working Lands Recommended Practices for Rice Production

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Properly managed rice has a great potential for supporting waterbirds. Waterbirds and rice plants have one thing in common, both require good water management. As with the other crops discussed, good crop management practices need to be followed.

For most farmers, improvements to wildlife habitats within or near their rice crop will only require minor modifications to current practices. The recommendations fall into six areas of your operation as outlined below. Please also see [Recommended Practices for All Row Crops](http://www.audubon.org/bird/waterbirds/all_crops.html) (http://www.audubon.org/bird/waterbirds/all_crops.html).

1. Flooding and water depth management. Water depth is critical. Variable water depth in the field provides for bird diversity. When flooding a field, vary depth across the field. Shallower depths benefit shorebirds, while depths of 4-6 inches benefit many waterfowl species. Maintain the flood as long as possible throughout the winter months and early spring. Proper water management will benefit the environment as well as reduce costs. Conserve water wherever possible. Improve water control structures to capture as much runoff water as possible. Develop a system for tailwater recovery.

2. Nutrient management. Avoid nutrient management practices that harm earthworms and other soil invertebrates. Nitrogen rates need to be realistic and based on yield goals. Conduct in-season nutrient testing, if possible. Monitor and manage phosphorus and potassium levels. Conduct manure analysis to determine the true nutrient value of manure. Avoid nutrient applications that will result into nitrogen movement into ground or surface waters.

3. Tillage and residue management. Use a reduced-tillage or no-till system. Less tillage leaves residue and waste grain. Straw should be rolled prior to flooding. Standing straw that is not manipulated will not have as positive of an impact as rolled or burned straw. When burning straw, try to manage a fire so that it is burning into the wind. This will result in occasional skips and inconsistency in burn, and will leave more residue.

4. Integrated Pest Management. Use an insect- and weed-management program that has minimal impact on the environment.

5. Harvest Management. Combine-header type can influence straw quality and amount of waste grain. Headers that strip grain generally leave higher straw height that may benefit tall waterbird species such as the Great Egret and Great Blue Heron. When straw height is lower, shorter species such as geese are more abundant. Early harvest may also reduce the amount of waste grain that is available for waterbirds.

6. Field Border and Edge Management. Rice field edges should be managed to leave shelter for protection and diversity. Rice field ditches should be managed to provide shelter and species diversity. Allowing emerging marsh vegetation to become established will provide food sources and protection to birds; cattails and smartweed species are valuable to many bird species. Rotations with crayfish aquaculture, pasture, or summer fallow increase the area's attractiveness to waterbirds.