



# Leveraging Conservation Dollars

## *Agricultural Practices that Deliver Water Quality, Wildlife Habitat, and Soil Health*



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The Izaak Walton League of America's new report, *Leveraging Conservation Dollars: Agricultural Practices that Deliver Water Quality, Wildlife Habitat, and Soil Health*, highlights five conservation systems in growing use on America's farms and ranches that together deliver unmatched benefits for water quality, fish and wildlife habitat, and soil health.

The five conservation systems are no till, buffer strips, cover crops, integrated pest management, and managed rotational grazing. Alone and especially in combination, they can address some of the most intractable natural resource problems facing America today.

## Water Quality

All five conservation systems have been proven to reduce the runoff of agricultural pollutants into streams and wetlands. No till can reduce soil erosion by half or more, and phosphorus runoff by up to 90%. Conservation buffers can reduce the runoff of nutrients and pesticides by 50% or more, and runoff of soil by 75%. Cover crops can reduce polluted runoff by 40% to 80%, and sediment loss by 40% to 96%.

Integrated Pest Management (IPM) reduces the use of broadly applied pesticides, reducing the potential for runoff. Rotationally grazed buffers perform even better than continuously grazed grasslands in reducing fecal coliform and turbidity in neighboring streams.

No till, cover crops, and buffer strips used in combination can virtually eliminate sediment and nutrient runoff from cropland in most situations. Adding Integrated Pest Management can substantially reduce the risk of pesticide drift or runoff as well.

## Fish & Wildlife

Alone and together, these five systems provide substantial benefits for fish and wildlife. No till and cover crops

provide food and cover over winter and well into spring for pheasant, quail, turkey, deer and other mammals, along with migrating ducks, geese, and cranes.

Buffer strips and rotationally grazed pastures provide permanent habitat for a variety of wildlife. IPM can reduce or eliminate the unintended impacts of pesticides on fish, wildlife, and pollinators.

Salmonids and other fish benefit from the water quality benefits provided by all five practices, including reduced sediment, nutrients, and pesticides that now run off into streams and wetlands..

## Soil Health

The five conservation systems are a recipe for regenerating America's soils. No till preserves beneficial mycorrhizal fungi in the soil. Cover crops provide continuous living cover, and the roots of cover crops pump carbohydrates into the soil that feed beneficial fungi and bacteria year around.

Grassland buffer strips restore soil health on marginal cropland, and managed rotational grazing improves the health of grasslands and the health of the soils underneath. IPM reduces or eliminates the pesticides that can harm beneficial fungi and bacteria.

Each of the conservation systems will build soil carbon and regenerate soil health, but used together, no till, cover crops, buffer strips, Integrated Pest Management, and managed rotational grazing can supercharge soil health and much more rapidly restore soil organic matter, mycorrhizal fungi, and healthy bacteria to a farm or ranch.

Together, they regenerate soil health, reduce polluted runoff, reduce downstream flooding, and store carbon in the soil. Together they rebuild soil that will deliver healthier crops and more profitable farms, and preserve the basis of our food supply for future generations.

