Bats Are Worth Over $3 Billion to Agriculture

More than 1,200 species of bats around the world are playing critical roles in agriculture and natural systems. They help manage agricultural pests such as corn borers, cotton bollworms, and sugarcane scale insects. Others are important pollinators of crops and hardwoods. A 2005 study found that in the cotton fields of Texas, Mexican free-tailed bats consumed more than 3.7 billion pounds of cotton bollworms each year, reducing pest damage and pesticide use.

Resources

Bat Conservation International. Dedicated to the worldwide conservation of bats and their habitats. BC offers extensive information on all aspects of bat conservation and can provide advice specific to needs of the Farm. BC also offers financial assistance for many conservation activities, including isolation or retrofit of water developments that benefit wildlife. www.batcon.org

Natural Resources Conservation Service (NRCS). NRCS provides science-based technical assistance customized to each producer’s specific needs. Its Farm Bill NRCS also offers financial assistance for many conservation activities, including isolation or retrofit of water developments that benefit wildlife. www.nrcs.usda.gov

Livestock Water & Bats

A Pocket Guide for Livestock Producers

TECHNICAL & FINANCIAL ASSISTANCE

Water for Wildlife: Handbook for Ranchers & Range Managers

Step-by-step instructions for ensuring that bats and birds can safely access large water developments.

www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/water/conservation_tools/?cid=stelprdb1049808

www.batcon.org

http://www.watershedmanagement.org/connectedwatersheds initiatedbyfuelingdiversity.pdf
The Single Most Important Nutrient for Livestock and Wildlife

An adequate supply of clean water is necessary for all physiologic processes essential for life. Poor water quality can affect growth and reproduction, and for livestock producers this can mean losses in the form of decreased performance.

In the arid western United States, good quality water is scarce and wildlife — especially bats — often rely on water sources developed for livestock. Bats must drink while in flight over pooled water, requiring an unobstructed “swoop zone.” Anything on or near the water’s surface can render a trough unusable by bats. And when water levels are low or escape structures missing or inadequate, bats and other wildlife can become trapped and drowned. These decaying carcasses greatly diminish water quality and can negatively affect livestock health.

This guide describes proven methods for increasing wildlife safety and accessibility at livestock water developments. Preventing wildlife fatalities at artificial water sources not only conserves species, but also helps to maintain clean, uncontaminated water that is critical for any livestock operation.

Making Water Work for Bats

1. Install Wildlife Escape Structures. Escape structures should extend to the bottom of the trough and meet the inside wall. Use grippable, long-lasting materials and ensure the structure is firmly secured to the trough rim. Slope should be no steeper than 45 degrees. A 4-by-8 foot sheet of 13-gauge expanded-metal grating with 1/2-inch or 1-inch mesh is highly recommended.

2. Maintain Water Level Near the Top. Most bats and many birds are easily trapped and drowned if water levels fall. Keep small- and mid-size troughs full or dry. Watch for leaks.

3. Use Large Troughs. Bats drink by skimming the water surface. Larger water surfaces accommodate a greater number of bat species. Ideally, use troughs with a diameter or length of at least 10 to 12 feet.

4. Remove Obstructions. Fencing, wire, algae and other obstacles in the swoop zone render troughs virtually unusable by in-flight drinkers. Avoid sharing troughs between two pastures. If not feasible, place fence off-center to maximize unobstructed surface on one side. Braces and posts should not extend past the rim.

5. Control Vegetation Around Water. High, dense vegetation can obstruct bats and birds in flight. Use managed grazing or manual control of vegetation around the water.

6. Keep Clear of Predator Perches. Fences posts, trees and shrubs provide perches where hawks and owls can wait to catch bats and small birds.