

Raise the Blade

This handout is intended for landowners and producers who clip livestock pastures or bush-hog fields to maintain grassland habitat.

Plight of Grassland Birds and Box Turtles

Grassland birds and Box Turtles seek out grasslands for nesting each year. In Virginia, most grasslands are found in working landscapes (hayfields and livestock pastures). Due to agricultural intensification in recent decades, grassland bird and turtle populations have declined at precipitous rates — in some locations, by 70% or more over the past 50 years.

Their Future is in Our Hands

The good news is that changes in farming practices are showing considerable promise for slowing declines. The future of these species depends on the willingness of landowners and producers to: (1) recognize the role they play in helping reverse these declines, and (2) adopt best management practices to conserve these vulnerable animals.

Best Management Practices

April, May, and June are the most active nesting months for grassland birds, and therefore the time when they are most vulnerable. Any clipping, mowing, or haying of fields should be delayed until July 1st or later if possible.

However, we are finding that Box Turtles can be found in fields throughout the Summer and Fall, so if mowing or haying is going to occur, we recommend raising the blade of your machinery to minimize turtle mortality.

Raising the Blade

- How high can you get the blade? There are many different styles of mowers—sickle bar, disc, drum, etc. Familiarize yourself with the machinery you have, as well as options for raising the blades with "shoes" and by other methods.
- The higher you raise the blade, the more birds and turtles—as well as their nests and young—will survive.
- Older, more mature Box Turtles tend to have higher reproductive output (i.e., they produce more young), making them irreplaceable for building up local populations. However, these older turtles are also taller, making them more vulnerable to being hit by lower blades.
- As much as half of Box Turtle mortality from mowing is caused by tractor tires (crushing), so reducing machinery time on the ground will save turtles as well.



(Above) Box Turtles are beautiful and easily-recognizable, land-dwelling turtles that live for up to 70 years in the wild. They sport a shell that is ornamented by splashes of reds, oranges, and yellows, appearing in what has been described as "paw-shaped" patterns. The markings on every individual turtle are unique. Photo by Max Earle.



(Right) Bobolinks are a charismatic species of grassland bird, known by their flashy black and yellow plumage and their loud, musical chatter during the breeding season. Pictured here is a Bobolink fledgling that recently outgrew its nest. Photo by Bernadette Rigley.

**RAISING THE CUTTING BLADE OF YOUR MACHINERY TO
8" OR HIGHER
HELPS PROTECT BIRDS AND TURTLES USING YOUR FIELDS**

Additional Benefits of Raising the Blade

- When grasses are left slightly higher, grassland birds are more likely to re-occupy mowed fields (and re-nest or continue nesting) if grasses are left taller.
- Cutting higher allows grasses to recover and regrow faster, improving grass health and future hay cuttings.
- Taller grasses keep the soil covered, protecting the soil during hot summer months from UV radiation and drying out, improving both short and long-term soil health.
- Shorter-stemmed flowering species, which can provide ongoing floral resources for pollinators, are able to survive the mowing process.

8"

8"

RAISE THE BLADE



Illustrations by Nick Garnhart



Smithsonian
National Zoological Park
Conservation Biology Institute



Smithsonian's
Turtle Conservation
Ecology Lab



Piedmont
Environmental
Council



The Clifton Institute

American Farmland Trust

