



FIELD MANAGEMENT GUIDELINES

for Virginia's Grassland & Shrubland Birds

Updated: April 2021

This guide is intended for landowners who are interested in helping grassland birds and have some flexibility in their management approaches. Even just choosing to implement one of the practices listed below can have a positive impact. The information in this handout is based off nearly a decade of Virginia Working Landscapes grassland research, which aims to use science to inform best management practices for biodiversity conservation. To learn more about our research, visit: www.vaworkinglandscapes.org

Grassland and shrubland birds are declining more than any other group of birds. These declines have been attributed to anthropogenic causes such as agricultural intensification, habitat loss/ fragmentation and pesticide use, and are increasingly exacerbated by the effects of climate change. Farmlands and associated grasslands (i.e., cropland, livestock pasture) in Virginia are one of the most understudied ecosystems in the state. However, these working grasslands are home to some of our nation's most threatened species of birds throughout the year. With over 80% of Virginia's grasslands currently held in private hands, the survival and well-being of these vulnerable species depends entirely on the decisions made by private landowners.

WHAT CAN YOU DO?

- 1. If possible, delay field maintenance until mid-July.** If circumstances require you to cut earlier, try to do so by late-May and wait at least 65 days before the next cut. Although this first cut will undoubtedly disturb nesting birds, it is early enough in the season that they will likely re-nest. Waiting the 65 day period will allow most species to successfully fledge at least one clutch of young.^{2,3,6}
- 2. If you have fallow fields that are managed once annually,** the optimal time of year to bush-hog is Feb 15—Apr 1. This leaves ample cover for overwintering birds (and arthropods!).
- 3. If circumstances require you to mow during the breeding season, focus on smaller fields first and work your way up to larger fields.** Larger fields (>30 acres) have a higher density of grassland nesting birds.^{6,4}
- 4. Manage fields in patches** (i.e. Burn or cut 1/3 of field per year) to leave varying structure and cover for birds year-round.²
- 5. Incorporate native grasses, forbs and legumes into your fields** to provide foraging opportunities and protective cover.^{1,2,6}
- 6. Promote connectivity of grasslands** between neighboring farms. Large expanses of connected grasslands are the most important for many of our grassland obligates.^{2,6}
- 7. Follow low intensity or rotational grazing practices,** as this improves insect availability and provides favorable foraging conditions for grassland birds. Rotational grazing also encourages regeneration of soils and vegetation.^{2,4}
- 8. Modify cutting speed and pattern** by mowing your field slowly in a spiraling motion from the inside of the field outwards. This allows the birds time and space to escape. Avoid mowing at night.^{1,2,6}
- 9. Increase cutting height** to a minimum of 6-8 inches. This not only leaves protective cover for nesting grassland birds and their fledglings but also helps promote healthy root systems and soil health.¹
- 10. Attach flushing bars** to the front of your tractor (dangling chains) to flush young birds in your mower's path.^{2,3}
- 11. Hang nest boxes** for cavity-nesting species like American Kestrels, Barn Owls, and Eastern Bluebirds.⁵

*For references and citations, visit <https://www.vaworkinglandscapes.org/education/resources/field-management-guidelines-for-grassland-birds/>



Eastern Meadowlark



American Kestrel



Eastern Bluebird



Bobolink



Field Sparrow



Northern Bobwhite Quail



Loggerhead Shrike



Common Yellowthroat



Red-winged Blackbird



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Field Management Risk Calendar for Grassland Birds

Updated: April 2021



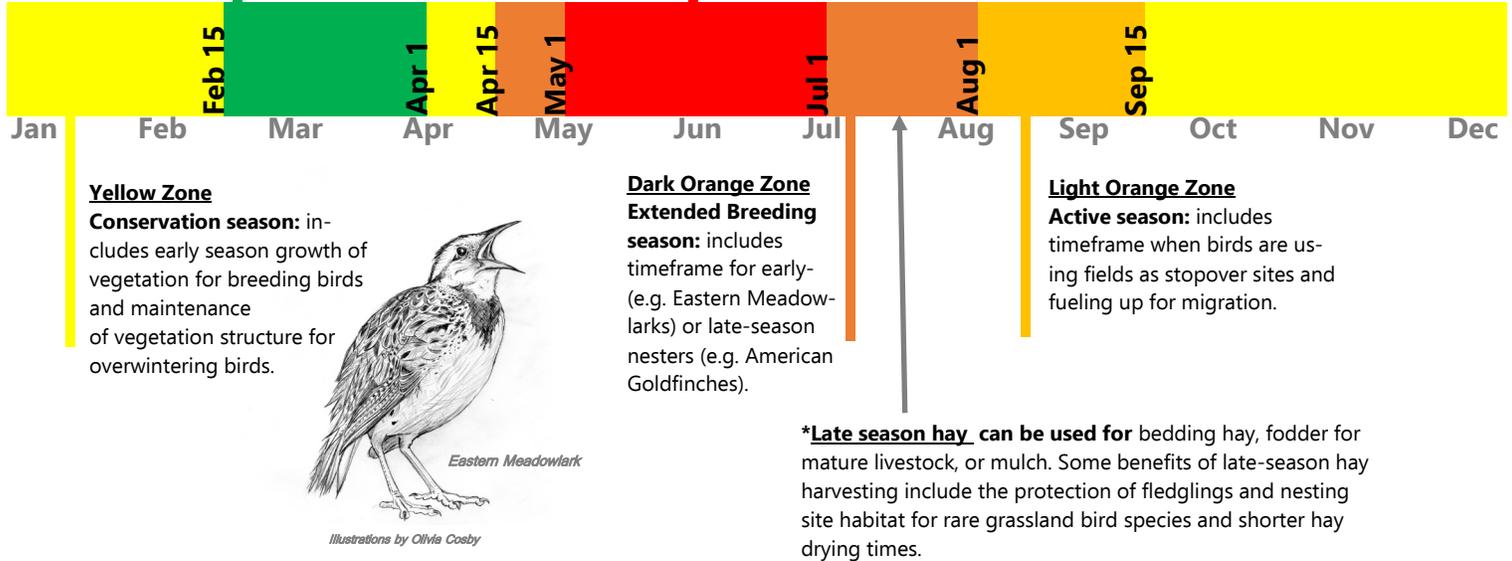
Bobolink

Green Zone

Management season: optimal time for field management, especially if field is only managed once per year.

Red Zone

Peak Breeding season: includes peak nesting period for many grassland species resulting of >90% mortality of nestlings if mowed during this time.



What species can we expect in Virginia's grasslands, and when?

Habitat associations based off of data collected from Virginia Working Landscapes' annual grassland bird surveys

Species	Present in VA	Habitat Association
American Kestrel	Year-round	Open grassland habitats including meadows, pastures and hayfields
Bobolink	Spring/Summer	Large grasslands dominated by sparse cool-season grasses intermixed with broad-leafed forbs
Common Yellowthroat	Spring/Summer	Thick, broad-leafed vegetation including wildflower meadows, wetlands and fallow fields
Dickcissel	Spring/Summer	Large grasslands with dense cover, tall vegetation, and many (>10/ha) elevated song perches
Eastern Bluebird	Year-round	Wide range of grasslands but requires cavities for nesting and multiple perches
Eastern Kingbird	Spring/Summer	Wide range of grassland habitats with mature trees nearby for nesting
Eastern Meadowlark	Year-round	Large, expansive cool-season pastures and hayfields with sparse vegetation
Field Sparrow	Year-round	Both warm and cool-season meadows containing ample forbs and shrubs
Grasshopper Sparrow	Spring/Summer	Large, expansive cool-season pastures and hayfields with short vegetation
Indigo Bunting	Spring/Summer	Both warm and cool-season meadows with ample forbs and shrubs, large or small fields
Loggerhead Shrike	Year-round	Large contiguous grasslands (pastures) with scattered shrubs for perching and impaling prey
Northern Bobwhite Quail	Year-round	Requires mixture of habitat types including meadows with ample edge habitat for cover and bare ground
Northern Harrier	Year-round	Expansive grassland habitat with sparse/short grasses for hunting and patches of tall/dense grasses for roosting
Red-winged Blackbird	Year-round	Wide range of grassland habitats, higher densities in wet areas with patches of thick vegetation
Short-eared Owl	Winter	Expansive grassland habitat with sparse/short grasses for hunting and patches of tall/dense grasses for roosting