

Subject: Identifying and Creating Lesser and Greater Prairie-Chicken Habitat

As a whole, distribution and numbers of both Lesser and Greater Prairie-Chickens have decreased significantly from historical levels and continue to be on the decline in Kansas. Due to these concerns, upland bird specialists have identified needs to emphasize creating desired or lacking types of habitat for both species within a given region.

For the Lesser Prairie-Chicken, both nesting and brood-rearing habitat is needed throughout known or identified occupation areas.

For the Greater Prairie-Chicken, the primary lacking habitat type is adequate residual residue for nesting cover.

Recognition that most, if not all, desirable Prairie-Chicken habitat areas are grazed provides land managers the opportunity to shape or create desirable habitat through prescribed grazing, prescribed burning, targeted grazing systems, and tools specifically designed to create or manipulate native plant communities. This creation or manipulation should coincide with the identification of needed or lacking habitat types.

Nesting Habitat

Canopy or ground cover of 60 to 80 percent grasses, forbs, or shrubs identified as 12 to 15 inches (West) and 15 to 22 inches (East) of residual cover primarily excluding seed stems, shall be available in the timeframe of April 15 through July 15, with the balance of pasture being short grazed, relatively bare, or low profile vegetation. Forbs and legumes may be present in low profile vegetation in order to attract insects to the area. Residual vegetative material is the primary key for successful nesting to occur.

Whole field springtime prescribed burning is not compatible for the development of nesting habitat or the accumulation of residual cover for the purpose of nest development unless the prescribed burning is accomplished through the use of patch burn grazing. If a producer wishes to focus on nesting habitat as their primary habitat goal, prescribed burning may not be completed on any one acre more than once in a three year period. For the growing season following a spring time prescribed burn either brood-rearing and/or winter cover habitat will be prescribed. The goal should be to create nesting habitat a minimum of two out of three years.

Types of grazing systems or prescriptions capable of creating nesting habitat

- 3/4 or full season grazing systems with moderate stocking rates. Grazing season length for 3/4 season systems shall not extend past August 15. Full season grazing shall not extend past October 31.
- Access control followed by moderate dormant season use creating patchy grazed areas.
- Rotational grazing systems with late season or dormant season rotations with moderate stocking rates, providing for the opportunity for the grazing animals to create patchy grazed areas. Typically, this would be designed with 2 to 6 paddocks in a rotation. Intensively grazed patches are more difficult to create as the number of paddocks and stock density increases. Altering the stocking rate, changing the grazing intensities throughout the system such as skipping some paddocks during the growing season followed by some dormant season grazing may be required to meet the targeted nesting habitat requirement.
- Intensive early stocking (IES) with adequate late summer rest and dormant season grazing to create patchiness of both taller and short or close grazed forages. Grazing shall not occur past the 15th of July through the end of the growing season. Earlier pullout dates would be beneficial to ensure leafy re-growth. If prescribed burning is used in conjunction with IES, the target for that year should be to create brood-rearing habitat while moving in the direction of creating nesting habitat the spring following the IES. IES with the use of prescribed burning may not be scheduled more than once in three years.
- Patch burn grazing. Stocking rates shall be based upon the full acreage pasture in the patch burn system. No more than 1/3 of the acres targeted in the system shall be scheduled for prescribed burning in any one year. Currently patch burn grazing is only recommended in precipitation zones of greater than 28 inches.
- Two pasture switch back systems with moderate stocking rates. These systems shall be designed with a first rotation occurring in mid-to late June. The early grazed areas would be targeted for creating nesting habitat, while the late season grazed area would be targeted as brood-rearing habitat. A second rotation back into the first grazed area may need to occur after October 1 if patchy areas are devoid. Animal performance may suffer with this system especially if first rotation is closer to July than to the first of June.

Examples

- One pasture system – 3/4 or full season grazing system designed with moderate stocking rates for two years followed by a prescribed burn and an IES with adequate late season rest.
- Rotational grazing systems with moderate stocking rates which create patchy grazing due to cattle selecting the most desirable species and time of grazing is limited to the time required to create target habitat structure. Grazing season shall be long enough to create patchy grazing at the end of the growing season. Paddock numbers should be between 2 and 6 paddocks.
- Three-pasture system – Rotate three different grazing prescriptions through the three pastures over a three year period. One pasture could be 3/4 season grazed moderately, a second pasture would be full season moderately grazed, and a third

pasture IES using prescribed burning prior to the growing season, followed by adequate late season rest. Pull off dates for the IES should be early enough to provide ample time for vegetative re-growth to occur (no later than July 15).

- Patch burn grazed where a pasture is divided into three relatively equally producing grazing units, not necessarily equal acres. No acres will be targeted to be burned more than once in a three year period. At least 1/3 of the whole pasture will be burned each year. Stocking rates should be based upon the entire grazing unit productivity even though the primary selected grazing area will be the acres exposed to prescribed burning that year.

Monitoring

- Monitoring shall be performed on a typical location which depicts the average created habitat type.
- Monitoring shall be performed following the last grazing event, at/or during the dormant season, or preferably at the beginning or during the targeted critical habitat period.

Nesting habitat in winter months - Good (following tree removal)



Nesting habitat (close-up) - Good



Nesting habitat at the end of growing season and post grazing - Good



Nesting habitat at the end of growing season and post grazing - Marginal



Transition between nesting and brood-rearing habitat



Brood-rearing

Short-grazed, relatively bare, or low profile vegetation present on 60 to 70 percent of the area for the timeframe of mid-June through mid-August, with the balance being residual cover with a structural height of 12 to 15 inches. Beneficial forbs or legumes which attract insects should be present and not discouraged.

This habitat type is important because it allows young chicks to move freely in search of insects or food. The associated 12 to 15 inch structural height provides quick access to temporary cover nearby, from predators.

Creating both nesting and brood rearing habitat within the same pasture is difficult unless the producer elects to implement a patch burn grazing system. Without a patch burn grazing system a producer can select to create either nesting habitat or brood rearing habitat through their grazing system designs. When one habitat type is selected by a producer or grazer, it is recommended a grazing system be designed to target that desired habitat for the whole pasture unit. If more than one grazing unit or pasture is targeted for the development of prairie chicken habitat, separate grazing system designs should be selected to create more than one habitat type.

Types of grazing systems or prescriptions capable of creating brood-rearing habitat

- IES with prescribed burning (no more than once in three years) and without prescribed burning.
- IES with late season use once every three years followed by full season grazing the second year, and either full season moderate grazing or IES without prescribed burning the third year.
- Patch burn grazing.

- Full season grazing systems using light to moderate stocking rates and no rotations.
- Two pasture switch back systems with moderate stocking rates. These systems shall be designed with a first rotation occurring in mid-to late June. The early grazed areas would be targeted for creating nesting habitat, while the late season grazed area would be targeted as brood-rearing habitat. A second rotation back into the first grazed area may need to occur after October 1 if patchy areas are devoid. Animal performance may suffer with this system especially if first rotation is closer to July than to the first of June.
- A 3-6 pasture rotational grazing system using light to moderate stocking rates. These systems shall be designed to short graze half or 2/3 of the paddocks while leaving residual cover in the remaining half or 1/3 of the paddocks. Grazing intensity should be managed to create non-uniform grazing throughout each paddock and throughout the system.

Examples

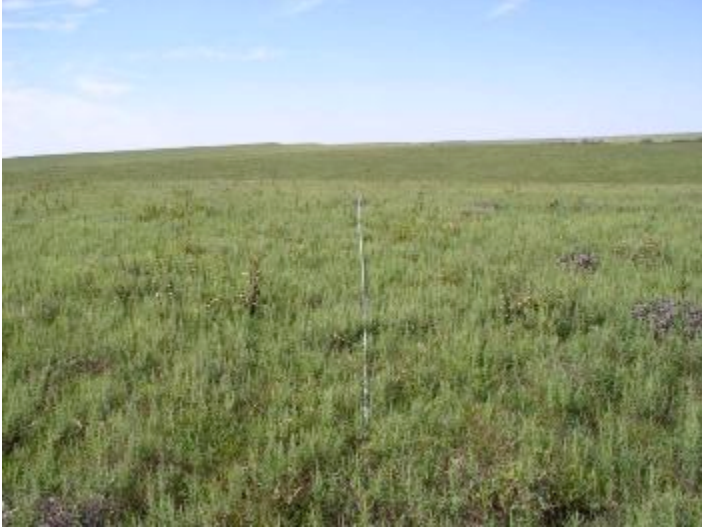
- IES on acres where prescribed burning was not used. Grazing intensity and time of grazing event should be consistent with normal IES systems. Grazers should be removed within one week of the target removal date of July 15. In areas where the potential of invading woody species exists, prescribed burning should be used once in three years or twice in five years followed by an IES system. To extend the creation of brood-rearing habitat, grazing systems in the tall-grass region may be scheduled for IES followed by late season grazing once every three years. If late season grazing is scheduled, the following year shall be full season grazing. The third year may be either full season grazing or IES without prescribed burning.
- Patch burn grazed pasture will be divided into three relatively equally producing grazing units. No acres will be targeted to be burned more than once in a three year period, but at least 1/3 of the whole pasture will be burned each year. Stocking rates should be based upon the entire grazing unit productivity even though the primary selected grazing area will be the acres exposed to prescribed burning that year.
- A rotational grazing system designed with 3 to 6 paddocks or pastures in close proximity. The system should be designed with the paddocks or pastures being grazed with light to moderate stocking numbers. In 2/3 of the paddocks or pastures, longer grazing periods shall be implemented resulting in many areas of the paddock or pasture being close grazed and some areas not being grazed at all. The remaining 1/3 of the paddock(s) or pasture(s) should have short grazing periods or even deferment scheduled, resulting in un-grazed or lightly grazed areas containing large amounts of residual material.

Monitoring

- Monitoring shall be performed on a typical location which depicts the average created habitat type.

- Monitoring shall be performed following the last grazing event, at or during the dormant season, or preferably at the beginning of the targeted habitat period.

Brood rearing habitat during summer months - Good



Brood rearing habitat at end of growing season - Good



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http://www.ks.nrcs.usda.gov/technical/tech_notes/ran9.html