

## Winter Habitat for Ring-Necked Pheasants

Establishing good winter habitat for pheasants is often neglected until there is a devastating winter blizzard or ice storm, when it is too late to help the pheasant population. When spring weather melts the snow drifts and landscapes become green, it is easy to again forget to make appropriate winter habitat available for pheasants to survive the next winter. Plan now to establish winter habitat for resident wildlife like pheasants. The following information will help you plan and design suitable winter habitat where it is needed most.



### Habitat Needs

Pheasants are a grassland-dependent species that thrives in farmlands containing a mixture of cultivated grains, undisturbed grasslands and wetlands. Undisturbed grass habitats are required for nesting, brood rearing, roosting, and escape cover. Most pheasants move less than 2 miles between summer and winter range. Therefore, a core winter complex is needed within 2 miles of grasslands. Herbaceous and/or woody cover plantings should be considered if no winter cover is within 2 miles of grassland habitat. If a core wintering complex is within 2 miles of your area, concentrate on improving the quality of your grassland habitats for nesting and brooding birds (i.e., increase forb components to increase accessibility and insect availability for chicks). If your land is within one-half mile of a shelterbelt that meets the outlined specifications but lacks lodging-resistant herbaceous cover (i.e., cattails) and/or food, then concentrate on providing those components to complement the existing woody cover area.

### Food

Remember, without a reliable food source, even the best winter cover cannot support wildlife in a severe winter. A reliable food source is edible, digestible, available in all types of weather, year after year and in adequate amounts to last all winter (Nov.–Mar.)

Food plots or leaving crops in the field have been most practical. Feeders (inaccessible to deer) can be used in conjunction with food plots. Crops for wildlife food plots (from most to least beneficial) include: corn, grain sorghum, sunflower, soybeans, wheat, oats and millet.

### Cover

The primary function of an effective winter cover includes:

1. Protection from blowing and drifting snow.
2. Reduction in wind chill exposure.
3. Escape cover from predators.

Two types of cover:

1. *Herbaceous Cover*: A large block of greater than or equal to 10 acres, such as cattails, native grasses, sorghum-sudan grass or narrow row corn.
2. *Woody Cover*: A well-designed woody cover planting for wildlife of greater than or equal to 3 acres, such as farmstead shelterbelts, should include conifers and shrubs.

A minimum woody planting would include 2 shrub rows on the windward side to catch drifting snow, 4 or more rows of conifers and 1 or 2 rows of shrubs on the leeward side. The distance from the outermost row to innermost row should be 200 feet. Shrubs are important to include in the design because they offer shelter as well as food.

The ideal complex must be at least a 15-acre block comprised of a 3-5 acre shrub and conifer/evergreen planting north and/or west of an adjacent 10+ acre block of heavy herbaceous cover, and a 2-4 acre corn food plot. ***(Remember, without a reliable food source, even the best winter cover cannot support wildlife in severe winters!)***

*Note*: Woody cover plantings **should not** be planted in areas that are being managed for native species that depend on large, uninterrupted grasslands (e.g., prairie chicken, upland sandpiper) or species that are vulnerable to cowbird parasitism (e.g., bobolink, dickcissel).

### Possible Assistance Programs

Opportunities exist for cost share and even annual land payments for the land planted to trees as windbreaks, wildlife plantings, shelterbelts and living snow fence establishment. The USDA Conservation Reserve Program (CRP), Continuous Sign-Up offers many positive grassland, wetland, tree planting incentives. Contact your county Farm Service Agency (FSA), Natural Resources Conservation Service (NRCS), Soil and Water Conservation District (SWCD), Minnesota Department of Natural Resources, and University of Minnesota Extension office for more details.

Cost-share assistance programs for food plot establishment may also be available from DNR and local conservation organizations including Pheasants Forever chapters.

## Shrubs and Conifers Used to Enhance Winter Habitat

Shrubs		(space 3-6 feet within the row; 6-10 feet between)	Height	Width
▲ Arrowwood, Downy	<i>(Viburnum rafinesqueanum)</i>		6	6
▲ Black Chokeberry	<i>(Aronia melanocarpa)</i>	(can spread; suckers)	10	6 - 8
▲ Buffaloberry, Silver	<i>(Shepherdia argentea)</i>	(for sandy soils)	8	10
▲ Cranberry	<i>(Viburnum trilobum)</i>	Highbush	10	12
	<i>(Opulus var. Americanum)</i>	American	10	12
▲ Dogwood	<i>(Cornus sericea)</i>	Redosier	10	12
▲	<i>(Cornus racemosa)</i>	Gray	10	10
	<i>(Cornus amomum)</i>	Silky	10	10
▲ Elderberry, Black	<i>(Sambucus nigra)</i>		20	10
▲ False Indigo	<i>(Amorpha sp.)</i>	(dwarf, desert, many cultivars)	10	10
▲ Hazelnut, American	<i>(Corylus americana)</i>		8 - 10	6 - 8
■ Lilac	<i>(Syringa vulgaris)</i>	(suckers; provides cover; no food value for wildlife)	15	12
▲ Nannyberry	<i>(Viburnum lentago)</i>		20 - 25	6 - 10
▲ Ninebark	<i>(Physocarpus opulifolius)</i>		10	10
▲ Sandbar Willow	<i>(Salix interior)</i>	(suckers)	5 - 10	5 - 10
▲ Sand Cherry	<i>(Prunus cistena)</i>		8	8
▲ Serviceberry	<i>(Amelanchier alnifolia)</i>	(8 Minnesota native species)	10 - 30	10 - 20
▲ Silverberry	<i>(Elaeagnus commutata)</i>	(suckers)	5 - 9	3 - 6
Small Trees		(space 10-15 feet within the row; 20 feet between)	Height	Width
▲ American Plum	<i>(Prunus americana)</i>	(can spread/suckers)	20	15 - 25
▲ Chokecherry	<i>(Prunus virginiana)</i>	(can spread/suckers)	20	15 - 35
■ Crabapple	<i>(Malus sp.)</i>	(apple scab resistant and susceptible cultivars)	20 - 30	20 - 30
▲ Hawthorn *	<i>(Crataegus sp.)</i>	(10 Minnesota native species)	15 - 20	15 - 20
▲ Pin Cherry	<i>(Prunus pensylvanica)</i>		15	15 - 20
Conifers		(space 12-20 feet within the row; 20 feet between)	Height	Width
▲ Eastern Red Cedar *	<i>(Juniperus virginiana)</i>	(use native species/can be aggressive)	50	10 - 15
▲ Eastern White Pine **	<i>(Pinus strobus)</i>		100	50 - 80
▲ Northern White Cedar	<i>(Thuja occidentalis)</i>	(protect from deer)	50	10 - 20
■ White Spruce (Black Hills)	<i>(Picea glauca 'densata')</i>		50	20 - 30
▲ White Spruce **	<i>(Picea glauca (moench) voss)</i>		100	20 - 30

\*Note: Apple and hawthorn trees should not be planted near red cedar trees due to disease problems (cedar-apple rust). Plant spacing requirements depend on species and desired density. Red Cedar can be aggressive and needs to be managed. White spruce and white cedar are native but not the cultivars, black hills or techny (white cedar), however, they are excellent cultivars for SW MN.

\*\*Large conifers that are tall and sparsely branched (white pine, white spruce) may not be recommended for your eco-region or landscape. Native plants should always be considered first; however, there are also approved non-native cultivars that may add superior habitat for specific sites. Review habitat plans with local specialists.

▲ - Native      ■ - Non-Native (Some non-native species may not be eligible for State funding programs)

## References and Web Links

Minnesota's Complete Guide to Pheasant Habitat (by Pheasants Forever)

[www.minnesotapf.org/media/document/1000/completeguidetopheasanthabitatinmn.pdf](http://www.minnesotapf.org/media/document/1000/completeguidetopheasanthabitatinmn.pdf)

Winterizing Minnesota's Landscape for Wildlife, Al Berner, MN Department of Natural Resources, 2001

<http://files.dnr.state.mn.us/assistance/backyard/wildlifehabitat/winterwildlifehabitat.pdf>

Developing Core Wintering Areas for Farmland Wildlife, MN Department of Natural Resources, Al Berner, Carrol Henderson, R. Norrgard  
Long Range Plan for the Ring-necked Pheasant in Minnesota, March 8, 2005, MN Department of Natural Resources.

Woody Cover Plantings for Wildlife, MN Department of Natural Resources, Ray Norrgard and Wildlife Division, 1992, Revised 1999.

Book: Landscapes for Wildlife, Carrol Henderson, DNR

Ring-necked Pheasant, Fish and Wildlife Habitat Management Leaflet, Number 10, October 1999, USDA/NRCS.

National Agroforestry Center, USDA/NRCS, [www.unl.edu/nac](http://www.unl.edu/nac)

NRCS-Conservation Practice Standard, Upland Wildlife Habitat Management Code 645,

<http://efotg.sc.egov.usda.gov/references/publicMN/645mn.pdf>

University of Minnesota Agroforestry, [www.extension.umn.edu/agroforestry](http://www.extension.umn.edu/agroforestry)

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