

IOWA WILDLIFE WORKING LANDS HABITAT EVALUATION

I. This habitat evaluation will be used to decide if the quality criterion for wildlife is being met under either the current or planned future management for various land uses. It is used to document if wildlife component of an RMS plan is being met or to document if an area meets the Upland Wildlife Habitat Management Standard (645).

It is to be completed by NRCS staff or by partner agencies staff as part of developing a farm plan. It is not intended for landowner self certification for any USDA programs.

II. This evaluation system applies to the following land uses:

A. Cropland

B. Grasslands (Pasture, Permanent or Rotational Hayland, and Idle Grasslands)

C. Woodland (Managed Timber Stands and Wildlife/Unmanaged Woodland)

D. Riverine – Use SVAP to measure impacts to streams on producer's property

III. Deciding if quality criteria is met:

When wildlife is not a primary concern for planning, then the minimum Habitat Suitability Index (HSI) score is 0.50 to meet the quality criterion for wildlife for any land use(s) on a farm or fields within a tract.

Where wildlife is a primary concern for a farm or field(s) within a tract, then the minimum HSI is a 0.75.

See appendix for some general discussion of Wildlife needs that this appraisal is designed to address.

CROPLAND WILDLIFE EVALUATION:

PRODUCER: _____

DATE: _____

FARM #: _____ TRACT #: _____

Field #(s): _____

1. CROP RESIDUE:

(Choose one of A through G that reflects dominant condition of field(s) being evaluated – not average of operation)

	<u>Existing</u>	<u>Planned</u>
a. Food plots or non fall harvested grain that is \geq 2.5% of field acres are maintained within or adjacent to field(s)	15	15
b. Continuous No Till for all grain crops (no stalk chopping)	12	12
c. No Fall Tillage for all grain crops OR food plots or non fall harvested grain that is \geq 1% of field acres are maintained within or adjacent to field(s)	10	10
d. Continuous No Till for all grain crops (with stalk chopping)	7	7
e. Over winter crop residues provide > 50% ground cover for all grain crops in the rotation	5	5
f. Over winter crop residues provide \geq 35% ground cover for all grain crops in the rotation	2	2
g. None of the above	0	0

2. Crop Rotation:

(Choose the one that reflects dominant condition of fields being evaluated)

a. Row crop-small grain-legume or meadow rotation (Either whole field rotations or strip cropping - Meadow not harvested after August 1)	10	10
b. Row crop-small grain-legume or meadow rotation (Either whole field rotations or strip cropping - Meadow harvested after July 1)	6	6
c. Row crop-small grain rotation OR row crop-small grain-legume OR meadow rotation harvested before July 1 OR continuous row crop with fall cover crop	4	4
d. Continuous corn	1	1
e. Continuous row crop	0	0

3. Proximity to Other Cover Types:

(Choose ONE, either Herbaceous or Woody category which best reflects the dominant condition of field(s) being evaluated. All distances are from field edges.)

3A Herbaceous Cover:

	<u>Existing</u>	<u>Planned</u>
a. Herbaceous buffer (\geq 30 feet wide) or adjacent cover ($>$ 10 acres) not mown from May 15 to August 1 around $>$ 50% of field edges	20	20
b. Herbaceous buffers (\geq 30 feet wide) or adjacent cover ($>$ 10 ac.) not mown from May 15 to August 1 around $>$ 35% of field edges	15	15
c. More than 35% of field has adjacent herbaceous cover ($>$ 10 acres) not mown prior to July 15	12	12
d. Field has adjacent herbaceous cover ($>$ 5 acres) not mown from May 15 to August 1 <u>OR</u> is within 660 feet of herbaceous cover ($>$ 10 acres) not mown prior to July 15	10	10
e. Field is within 660 feet of herbaceous cover ($>$ 5 acres) or has buffer ($>$ 30 feet wide) around \geq 20% of field not mown from May 15 to August 1	8	8
f. Field is within 1320 feet of herbaceous cover ($>$ 10 acres) not mown prior to July 15 <u>OR</u> has buffer ($>$ 30 feet wide) around \geq 20% of field not mown prior to July 1	6	6
g. Field is within 1320 feet of herbaceous cover ($>$ 5 acres) not mown prior to July 1	4	4
h. Field has $>$ 1 acres of un-mown herbaceous cover within the field or $>$ 25% of the field is within 660 feet of this type of cover ($>$ 2 acres)	2	2
i. None of the above	0	0

3B Woody Cover:

a. More than 50% of field edges abuts <u>ungrazed</u> woodland ($>$ 5 ac. woodland)	20	20
b. More than 50% of field is within 660 feet of <u>ungrazed</u> woodland ($>$ 5 ac. woodland)	15	15
c. More than 25% of field edges abut <u>ungrazed</u> woodland ($>$ 5 acres woodland)	12	12
d. Field is within 1320 feet of <u>ungrazed</u> woodland ($>$ 5 acres woodland)	10	10
e. Field is within 660 feet of woodland ($>$ 10 acres woodland)	8	8
f. Field is within 2640 feet of <u>ungrazed</u> woodland ($>$ 5 acres woodland)	6	6
g. Field is within 2640 feet of woodland ($>$ 5 acres woodland)	4	4
h. Field has $>$ 1 acres of un-grazed woody cover within the field or $>$ 25% of the field is within 660 feet of this type of cover ($>$ 2 acres)	2	2
i. None of the above	0	0

Existing Planned

Total Points from 1- 3A or 1- 3B

HABITAT SUITABILITY INDEX:

Total Possible Points

45

45

HSI = Total Points Divided by 45

Bonus Points: Add 0.1 to HSI value if any of the following apply to the evaluated fields (max 0.1):

*Integrated Pest management

*Buffers or adjacent herbaceous cover is composed of > 5 native grasses and > 10 native forbs/legumes

*Woody Cover has $\geq 30\%$ of woodland composed of hard mast trees (oak, hickory, walnut, etc.) and has $\leq 10\%$ of area infested with invasive woody species such as buckthorn or multiflora rose

Final HSI

**If wildlife is secondary concern, then the
Minimum Wildlife HSI for Cropland HSI ≥ 0.5**

Meets Quality Criterion?

No

No

Yes

Yes

GRASSLAND HABITAT - Permanent Pastureland

PRODUCER: _____

DATE: _____

FARM #: _____ TRACT #: _____

Field #(s): _____

1. Composition of Stand:

(Choose one that reflects dominant condition of fields being evaluated. **NOTE:** *Species must be a substantial component of whole field stand, not just a few scattered plants to be counted below.*)

	<u>Existing</u>	<u>Planned</u>
a. Mixed native grasses and legumes (> 5 species total)	10	10
b. Mixed native and introduced grasses with legumes OR mixed introduced grasses and legumes (> 5 species total for either)	8	8
c. Mixed native grasses w/o legumes (> 3 species total) OR mixed introduced grasses with legumes (> 3 species)	5	5
d. Mixed introduced grasses w/o legumes (\geq 3 species)	3	3
e. Monoculture of one species of native or introduced grasses	1	1
f. None of the above OR Pasture is composed of mostly fescue or canarygrass (> 65% of stand)	0	0

2. Vegetative Height on May 1:

(Choose one that reflects dominant condition of fields being evaluated)

a. Predominant stand height is > 12 inches	10	10
b. Predominant stand height is 8 - 12 inches	7	7
c. Predominant stand height is 4 – 8 inches	4	4
d. Predominant stand height is < 4 inches	0	0

3. Stand Management:

(Choose one that reflects dominant condition of fields being evaluated)

a. Rotational grazing, light to moderate use (average forage height > 6" CSG or > 10" WSG during growing season)	10	10
b. Continuous grazing with light to moderate use (average forage height > 6" CSG or > 10" WSG during growing season)	7	7
c. Rotational grazing, moderate to heavy use (average forage height 3 – 6" CSG or 6-10" WSG during growing season)	4	4
d. Rotational grazing, heavy use (average forage height < 3" CSG or < 6" WSG during growing season)	2	2
e. Continuous grazing with heavy use (average forage height < 3" CSG or < 6" WSG during growing season)	0	0

Choose either 4A or 4B as appropriate. If have both pasture types need to do two sheets

4A. Field Size: (For Upland Pastures only)**(Choose one that reflects dominant condition of fields being evaluated)**

	<u>Existing</u>	<u>Planned</u>
a. More than 80 acres	10	10
b. 40 to 80 acres	7	7
c. 20 to 40 acres	5	5
d. 10 to 20 acres	3	3
e. Less than 10 acres	1	1

4B. Field Configuration (Riparian Pastures only):**(Choose one that reflects dominant condition of fields being evaluated)**

a. Average width of pasture > 300 feet	10	10
b. Average width of pasture > 200 - 300 feet	7	7
c. Average width of pasture > 100 to 200 feet	5	5
c. Average width of pasture > 50 to 100 feet	3	3
d. Average width of pasture < 50 feet	1	1

5. Water:**(Choose one that reflects dominant condition of fields being evaluated)**

a. Livestock are watered without having direct water contact access to any ponds or streams as applicable to site	10	10
b. Livestock access to ponds or streams is through a single controlled access point to minimize water quality degradation from livestock waste and sediment	5	5
c. Livestock have free access to water bodies or streams	0	0

6. Proximity to Other Cover Types:**(Choose one that reflects dominant condition of fields being evaluated. Distances are from field edges)**

a. Non fall tilled cropland, food plot (\geq 1acre) or ungrazed woodland (> 5acres) adjacent	10	10
b. Non fall tilled cropland, food plot (\geq 1acre) or ungrazed woodland (> 5acres) < 660 feet	7	7
c. Non fall tilled Cropland, food plot (\geq 1acre) or ungrazed woodland (> 5acres) < 1320 feet <u>OR</u> Cropland > 50% residue adjacent	5	5
d. Non fall tilled Cropland, food plot (\geq 1acre) or ungrazed woodland (> 5acres) < 2640 feet <u>OR</u> Cropland > 50% residue < 660 feet	2	2
e. None of the above	0	0

Existing Planned

Total Points from 1- 6

HABITAT SUITABILITY INDEX:

Total Possible Points

60

60

To get HSI Divide Total Points by 60

Bonus Points: Add 0.1 to HSI value if any of the following apply to the evaluated fields (max 0.1):

*Using Integrated Pest Management

*Following a Prescribed Grazing Plan that meets 528 Standard

Final HSI

**If wildlife is secondary concern, then the
Minimum Wildlife HSI for Pastureland HSI \geq 0.5**

Meets Quality Criterion?

No

No

Yes

Yes

GRASSLAND HABITAT - Hayland

(Permanent Hay or Condition of the Hay in a Rotational Cropping System)

PRODUCER: _____

DATE: _____

FARM #: _____ TRACT #: _____

Field #(s): _____

1. Composition of Stand:

(Choose one that reflects dominant condition of fields being evaluated)

(Note: species must be a substantial component of whole field stand, not just a few scattered plants to be counted below.)

	<u>Existing</u>	<u>Planned</u>
a. Hayland seeding mixture contains of grasses and legumes (> 5 species total)	10	10
b. Hayland seeding mixture contains of grasses and legumes (> 3 species total)	7	7
c. Hayland seeding mixture > 1 legume	4	4
d. Hayland seeding mixture > 1 grass	2	2
e. Hayland seeding mixture is a monoculture of grass or legume	1	1

2. Stand Management:

(Choose one that reflects dominant condition of fields being evaluated)

a. First hay cutting is before April 15 or after July 15 th	10	10
b. First hay cutting is between May 1 st and July 15 th but leave 20% of hayland acres un-mown until after August 1 st	8	8
c. First hay cutting on \geq 25% of hayland in field is after July 15 th	6	6
d. First hay cutting is between May 1 st and July 15 th but leave \geq 10% of hayland acres un-mown until after August 1 st	4	4
e. No hay cutting on \geq 25% of hayland in field after August 15 th	2	2
f. None of the above applies	0	0

3. Over Winter Stand Height:

(Choose one that reflects dominant condition of fields being evaluated)

a. September 30 th stand height > 6 inches on \geq 65% of hayland acres	10	10
b. September 30 th stand height > 6 inches on \geq 40 % of hayland acres <u>OR</u> September 30 th stand height 3 - 6 inches on \geq 65% of hayland	6	6
c. September 30 th stand height stand height 3 - 6 inches on \geq 40% of hayland	3	3
d. None of above apply	0	0

4. Field Configuration:

(Choose one that reflects dominant condition of fields being evaluated)

	<u>Existing</u>	<u>Planned</u>
a. Minimum width > 200 feet	10	10
b. Minimum width 100 - 200 feet	5	5
c. Minimum width < 100 feet	2	2

5. Proximity to Other Cover Types:

(Choose one that reflects dominant condition of fields being evaluated. Distances are from field edges)

a. More than 5 acres of non-fall tilled cropland, food plot (\geq 1 acre), ungrazed woodland, or idle grassland adjacent	10	10
b. More than 5 acres of non-fall cropland, food plot (\geq 1 acre), ungrazed woodland, or idle grassland within 660 feet	7	7
c. More than 5 acres of non-fall tilled cropland, food plot (\geq 1 acre) or ungrazed woodland within 1320 feet <u>OR</u> Cropland > 50% residue adjacent	5	5
d. More than 5 acres of non-fall cropland, food plot (\geq 1 acre) or ungrazed woodland within 2640 feet <u>OR</u> Cropland > 50% residue within 660 feet	2	2
e. None of the above	0	0

Total Points from 1- 6

HABITAT SUITABILITY INDEX:

Total Possible Points 40 40

To get HSI Divide Total Points by 40 _____

Bonus Points: Add 0.1 to HSI value if using Integrated Pest management

Final HSI _____

If wildlife is secondary concern, then the Minimum Wildlife HSI for Hayland HSI \geq 0.5

Meets Quality Criterion? No No
Yes Yes

WOODLAND WILDLIFE EVALUATION

(This includes woodland, savanna, wooded portions of pasture, draws, etc.)

PRODUCER: _____

DATE: _____

FARM #: _____ TRACT #: _____

Field #(s): _____

1. Woodland Composition – stand diversity:

(Choose one that reflects dominant condition of fields being evaluated.

To count, a species must be > 1% of trees in stand)

	<u>Existing</u>	<u>Planned</u>
a. Stand > 50% hard mast trees, > 3 hard mast species, and invasives such honey locust, buckthorn, multiflora rose, honey suckle, etc. are < 5% of stand	15	15
b. Stand > 35% hard mast trees, > 3 hard mast species, and invasives such honey locust, buckthorn, multiflora rose, honey suckle, etc. are < 5% of stand	12	12
c. Stand < 35% hard mast species but has \geq 3 hard mast species and invasives such honey locust, buckthorn, multiflora rose, honey suckle, etc. are < 10% of stand	10	10
d. Stand mixture of species, \geq 4 species present, at least 1 hard mast species and invasives such honey locust, buckthorn, multiflora rose, honey suckle, etc. are < 10% of stand	7	7
e. Stand has < 4 species, but at least 1 is a hard mast species, and invasive are <20% of stand	5	5
f. Stand has < 4 species, no hard mast and invasive are <20% of stand	3	3
g. Stand dominated by 1 species or invasives such honey locust, buckthorn, multiflora rose, honey suckle, etc. are < 20% of stand	1	1
h. Stand has > 20% invasive/undesirable species	0	0

2. Woodland Age Diversity:

(Choose one that reflects dominant condition of fields being evaluated – to count, the species must be > 5% of trees in stand)

a. Mixed age classes (all 4 classes: Saw timber, > 12" DBH; Pole, 6-11 DBH; Small Trees, 2-5" DBH; and Reproduction, < 2"DBH)	10	10
b. 2-3 age classes present	5	5
c. Woodland dominated by one age class	1	1

3. Woodland Management:

(Choose one that reflects dominant condition of fields being evaluated)

a. Woodland is ungrazed	20	20
b. Woodland periodically grazed as part of a NRCS approved grazing plan	5	5
c. Woodland has unmanaged livestock access	0	0

4. Understory Conditions:

(Choose one that reflects dominant condition of fields being evaluated)

	<u>Existing</u>	<u>Planned</u>
a. Mostly shrubs, saplings, brush piles, downed trees, woody debris, and herbaceous plants	10	10
b. Few, scattered downed trees, woody debris, brush piles, saplings, and shrubs, mostly herbaceous cover	5	5
c. Mostly open ground with little cover	1	1
d. Dominated by invasive species	0	0

5. Snags or Den (cavity) Trees:

(Choose one that reflects dominant condition of fields being evaluated)

a. Average is more than 5 trees per acre	5	5
b. Average is 2 - 5 trees per acre	3	3
c. Average is less than 2 trees per acre	0	0

6. Proximity to Other Cover Types:

(Choose one that reflects dominant condition of woodland being evaluated. Distances are from woodland edge)

a. Non fall tilled cropland, food plot (\geq 1acre) or ungrazed grassland ($>$ 10 acres) adjacent	10	10
b. Non fall tilled cropland, food plot (\geq 1acre) or ungrazed grassland ($>$ 10 acres) $<$ 660 feet	7	7
c. Non fall tilled Cropland, food plot (\geq 1acre) or ungrazed grassland ($>$ 10 acres) $<$ 1320 feet <u>OR</u> Cropland $>$ 50% residue adjacent	5	5
d. Non fall tilled Cropland, food plot (\geq 1acre) or ungrazed grassland ($>$ 10 acres) $<$ 2640 feet <u>OR</u> Cropland $>$ 50% residue $<$ 660 feet	2	2
e. None of the above	0	0

Total Points from 1- 7

HABITAT SUITABILITY INDEX:

Total Possible Points

70

70

To get HSI Divide Total Points by 70

Final HSI

If wildlife is secondary concern, then the Minimum Wildlife HSI for Woodland HSI \geq 0.5

Meets Quality Criterion?

No

No

Yes

Yes

**GRASSLAND HABITAT - Idle Grasslands
(CRP, odd areas, or other herbaceous dominated
areas not being used for production)**

PRODUCER: _____

DATE: _____

FARM #: _____ TRACT #: _____

Field #(s): _____

1. Composition of Stand:

(Choose one that reflects dominant condition of fields being evaluated

NOTE: species must be a substantial component of stand, not just a few scattered plants to be counted below.

	<u>Existing</u>	<u>Planned</u>
a. Native species with ≥ 15 species grasses, forbs, legumes	15	15
b. Native species with ≥ 10 species grasses, forbs, legumes	10	10
c. Mixed Introduced grasses (w/o fescue or Reed Canarygrass), > 5 total species with ≥ 2 forbs/legumes	10	10
d. Mixed natives w/o forbs/legumes, ≥ 5 species	7	7
e. Mixed introduced grasses ≥ 5 total species with at least 1 legume	7	7
f. Mixed grasses, ≥ 2 species grasses and 1 legume (not Reed Canarygrass or fescue)	5	5
g. Mixed grasses > 2 species	3	3
h. Stand is none of the above	1	1

2. Size of Stand:

(Choose one that reflects dominant condition of fields being evaluated)

a. More than 40 acres or linear strip ≥ 50 feet wide	10	10
b. 20 - 40 acres or linear strip ≥ 40 feet wide	7	7
c. 10 – 19 acres or linear strip ≥ 30 feet wide	5	5
d. 1 - 10 acres or linear strip ≥ 20 feet wide	3	3
e. less than 1 acre or linear strip < 20 feet wide	0	0

**3. Choose either 3A or 3B whichever best fits site conditions.
Use 3A if site is CRP or non-grassland remnant. Use 3B if stand
is a native grassland remnant**

3A. Proximity to Other Cover Types:

(Choose one that reflects dominant condition of fields being evaluated.

Distances are from field edges)

	<u>Existing</u>	<u>Planned</u>
a. Non fall tilled cropland, food plot (\geq 1acre) or ungrazed woodland (> 5acres) adjacent	10	10
b. Non fall tilled cropland, food plot (\geq 1acre) or ungrazed woodland (> 5acres) < 660 feet	7	7
c. Non fall tilled Cropland, food plot (\geq 1acre) or ungrazed woodland (> 5acres) < 1320 feet <u>OR</u> Cropland > 50% residue adjacent	5	5
d. Non fall tilled Cropland, food plot (\geq 1acre) or ungrazed woodland (> 5acres) < 2640 feet <u>OR</u> Cropland > 50% residue < 660 feet	2	2
e. None of the above	0	0

3B. Remnant Area:

(Choose one that reflects dominant condition of fields being evaluated)

a. Area is a native prairie remnant with a documented Federally listed or candidate T&E Species living on the site	10	10
b. Area is a native prairie remnant with a documented State listed T&E species living on site.	7	7
c. Area is a native prairie remnant with a documented State listed Species of Special Concern living on the site	5	5
d. Area is a native prairie remnant	3	3

Total Points from 1- 3

HABITAT SUITABILITY INDEX:

Total Possible Points 35 35

To get HSI Divide Total Points by 35

Final HSI

If wildlife is secondary concern, then the Minimum Wildlife HSI for Idle Grassland HSI \geq 0.5

Meets Quality Criterion?

No No
Yes Yes

Appendix:

WILDLIFE HABITAT

Fish and wildlife survival depends upon habitat. Habitat is composed of those things that wildlife needs to survive, water, food and cover. This appraisal system is intended to measure general habitat value for those three criteria for upland wildlife which are the target of the 645 Standard. In Iowa water is usually not essential for most upland wildlife species and this system focuses on cover and food. This appraisal looks at cropland grassland and woodland habitats.

Tillage practices affect wildlife in 4 primary ways:

1. Amount of cover provided by crop



2. Availability of wildlife food in crop residue



3. Timing and frequency of disturbance



4. Toxicity of nutrient inputs and Pesticides



Standing crop residue is particularly important for Winter Cover and Food



Small mammal diversity increases with crop residue

In Ag fields, crop residue can provide wildlife cover



In general, the higher the amount of crop residue, the greater the value for wildlife cover

Undisturbed cropland can also provide nesting habitat as the following table from research by Dr. Louis Best done at Iowa State University.

Bird species found to nest in conventionally-tilled (T) and no-till (NT) corn and soybeans (from Best 1986)

Species	Corn		Soybeans	
	T	NT	T	NT
Ring-necked pheasant		x	x	x
Killdeer	x	x		
Mourning dove	x	x	x	x
Horned lark	x		x	
American robin		x		
Common yellowthroat		x		
Bobolink		x		
Eastern meadowlark		x		
Western meadowlark		x		x
Red-winged blackbird	x	x		
Brown-headed cowbird	x	x	x	x
Dickcissel		x	x	
Savannah sparrow		x		
Grasshopper sparrow		x		
Vesper sparrow	x	x	x	x
Field sparrow		x		x

Undisturbed crop residue also can provide more food for wildlife than tilled fields since tillage buries food making it less accessible, especially for smaller species. If tillage is done, it is best done in the spring months when other sources of food become available. Tillage done early without later trips such as cultivating, reduce nest loss and direct mortality to wildlife.

Conservation Tillage, especially **No-Till**, in conjunction with:

Integrated Pest Management,
Crop rotation
Nutrient management
Conservation buffers

Greatly improves wildlife habitats in cropland fields

The interspersions of cover types is also valuable. The shorter the distances between different habitats, the less vulnerable species are when moving across open landscapes such as cropland or short grassland such as heavily grazed pasture. Long travel distances expose wildlife to predation.

Smaller species of wildlife such as small mammals and small birds that have to travel long distances for food in the winter use up valuable stored fat reserves and waste much of the energy from the food they consume just to make the trip.

While larger species such as deer can travel longer distances, a Bobwhite Quail for instance, would prefer to have all their food and cover needs within a home range of 40 acres. Benefits of other habitat types or food resources start to be less valuable if they are more than 1/8 of a mile away.

Grassland provides nesting and fawning cover



Wildlife needs a diversity of grass and forbs and legumes for cover. More species and taller residual cover is important to providing quality habitat.

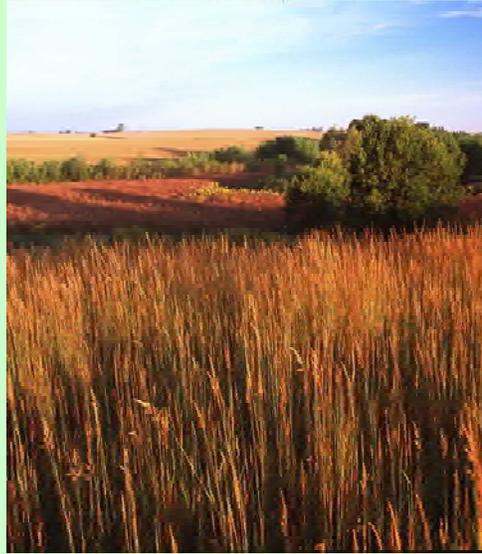
- Grasslands are sources of food for broods: forbs or legumes for energy and insects for protein



Many wildlife species have a varying diet throughout the year. In the spring for instance, the hen pheasant or quail needs large amount of protein when laying her clutch of eggs rather than just carbohydrates. When the young birds hatch they need protein to grow muscles and feather and their mother needs more protein to replace the feathers she sheds. . When fall and winter come, carbohydrate from seeds and waste grain are used

much more extensively. This is why a variety of food types and sources are valuable to wildlife.

Grassland also provide escape and winter cover for wildlife



In the winter much like people, wildlife needs places that provide thermal cover so that they can get in out of the cold and wind.

Grasslands can be Idle, CRP, or working lands with good management.



All can provide good wildlife habitat with good management

Woodlands provide habitat for many species.



Woodlands can provide reproductive cover, escape cover and winter for many species. Again a diversity of tree and shrub species provide better habitat than single species or even aged stands (tree plantations).

Woodland Wildlife Habitat

Diversity of tree species is good – want both hard mast trees and soft mast species to provide varied foods for different species

Hard mast: oaks, hickories, walnuts, pecan, etc. that produce a seed in a shell

Soft mast: ashes, maples, berry producers, etc. that don't have a hard shell

Wildlife tends to eat more of the fruit and seeds of soft mast species during the summer and early fall months. The hard mast species "fruits" are better protected from the elements and provide food in the winter and early spring months.

Woodland should not all be one age class of trees even if have multiple species

Need to keep some old mature saw timber size trees as well as pole and sapling aged trees for diverse wildlife values

Want to open the canopy enough to have light reach forest floor and allow forbs and shrubs to grow

Saw timber trees are those >12 inches DBH, Pole trees are from 6-12 inch DBH, saplings are 2-6 inches DBH, and reproduction are those <2 inch DBH. Typically prefer a canopy of less than 70 percent coverage to allow light top reach the floor in larger stands. In small stands, wooded draws, etc., usually enough light reaches the forest floor from the sides so overhead canopy is less of an issue.

Woodlands in large blocks provide habitat for woodland dependent wildlife species

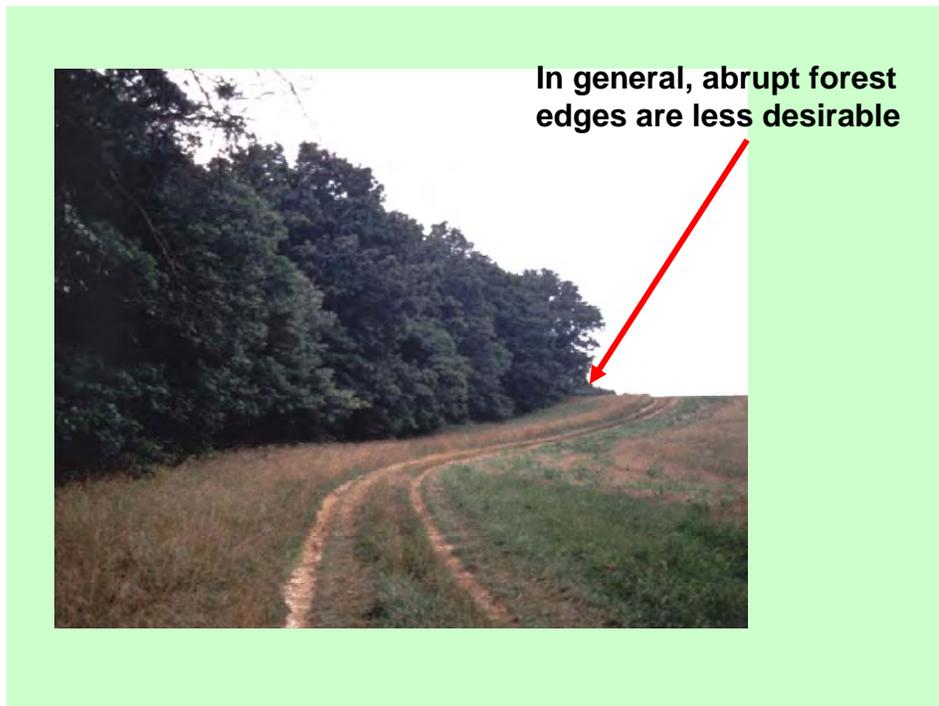


Unrestricted grazing of timber has one of the worst impacts on the woodland habitat. The cattle trample and eat the herbaceous layer, destroy young trees and compact the forest floor making regeneration of woody and herbaceous plants much more difficult. For quality woodland wildlife habitat, cattle should be fenced form woodlands. Typically woodland tracts have little forage for cattle so fencing them out of woodlands does not limit their food availability by much. In open grassland woodland habitats like savannas, limited flash grazing may be useful to maintain the open woodland nature.

Wooded draws provide travel lanes for wildlife between habitats as well as escape cover.



Practices like CRP riparian forest corridors can help provide more corridors. Maintaining existing wooded draws in crop and pasture fields is important in maintaining both travel and escape/winter cover for wildlife, especially those that are least mobile.



SHRUBS such as
Hazelnut
Wild plum,
Aromatic sumac,
Shrub lespedeza,
Roughleaf dogwood,
etc., planted along
abrupt woodland
edges softens
the transition to
other habitats and
provide additional
food and cover to a
woodland stand for
wildlife



Another method to provide softer edge transitions is to conduct edge feathering to provide a gradual transition from mature trees to cropland grasslands in particular. In this practice, trees along the edge are felled randomly both into the woodland and out toward the open field. Some or all can be left partially attached, in this case the trees leaf out for a few years and act like a shrub layer.