

Early Successional Habitat

(Acres) 647

Definition

Manage early plant succession to benefit desired wildlife or natural communities.

Massachusetts Practice Intent

The purpose of this practice is to increase plant community diversity to provide habitat for early successional species. Target habitats include grasslands, old fields, shrublands and young forest.

Condition Where Practice Applies

On all EQIP eligible lands that are suitable for the kinds of desired wildlife and plant species. This practice can also be used for creating forest openings, 5 acres or greater to encourage regeneration of desired forest communities.

Massachusetts NRCS Program Rules

For all projects:

- Consult with MA DFW_NRCS Habitat Biologist for on-site planning assistance.
- If the proposed project is located in NHESP Priority Habitat (Prihab), submit a data request form to the NRCS-NHESP Review Biologist prior to conducting a site visit and include the NRCS-DFW Habitat Biologist and the NRCS-NHESP Review Biologist in the site visit.
- The appropriate Habitat Evaluation Procedure (HEP) must be completed for the existing and proposed condition (use the HEP for the habitat type that you are trying to create/enhance).

For projects on forest land:

- The boundary of proposed cuts will be delineated during the planning phase.
- The proposed treatment (except for cutback borders) must be recommended in a forest management plan (FMP) or an addendum to the plan. The recommendation shall include:
 - a) The silvicultural goal and prescription, including a description of the quality of the material being cut.
 - b) The amount of basal area per acre being removed, including the amount of saw logs (MBF) and cordwood (this can come from existing cruise data).
 - c) The proposed area delineated on the stand map.
 - d) The NRCS practice name (for existing plans, if a-c are already met, the plan does not need to be amended to state the practice name).

Note: On pitch pine- scrub oak type habitat (or other Cape Cod forest habitat), where the landowner has no intention of managing their forest for forest products, a wildlife management plan may be developed instead of a forest management plan.

- Treatments shall be focused on areas with low commercial value that do not generate revenue to the landowner above the normal cost of running the operation including the forester's time and mobilization.
 - Revenue is mainly generated from cutting saw timber sized 10" or greater. Thus, if the Mean Stand Diameter is >10" and has some quality trees, there may be saw timber.
 - Target sites that have less than 1500 board feet/acre being removed. For example, a 14" tree with one 16 ft log has 80 board feet. It would take about 19 trees like this per acre to reach 1500 board feet. See table showing DBH, number of logs and corresponding board feet per tree.

- Tree marking does not constitute commencing a practice.

Program Payments are authorized for:

- Cutting non-commercial trees to create forest openings ≥ 5 ac.
- Brush hogging old fields at least 5 acres in size that are declining in wildlife value for targeted species. Cutting will be done after August 1 to avoid nesting birds or after September 15 if in PriHab for state listed turtle species.
- Mowing or selective tree removal in shrublands or young forests, that are ≥ 5 acres, and that are declining in wildlife value for targeted species. Cutting will be done after August 1 to avoid nesting birds or after September 15 if in PriHab for state listed turtle species.
- Delayed mowing of grasslands ≥ 10 acres after August 1. Cutting will be done after August 1 to avoid nesting birds or after September 15 if in PriHab for state listed turtle species.
- Creating cut back borders at least 50 feet wide adjacent to fields and other early successional habitats.

Program Payments are not authorized for:

- Commercial harvests, where wood products generate revenue to the landowner above the cost of running the operation including the forester's time and mobilization.
- Creating new agricultural fields or grazing land.
- Opening areas for houses or livestock.
- Creating forest openings less than 5 acres unless proposed opening is directly adjacent to existing young forest and will result in a combined patch size ≥ 5 acres.
- Stumping trees

Further Explanation of Scenarios:

Light Brush Hogging

- For mowing herbaceous or woody vegetation that is limiting habitat value. This may be for restoring grasslands (≥ 10 ac) or for delay mowing of an old field (≥ 5 ac) that has not been recently mowed.

Mowing With Foregone Income

- Eligible for quality hayfields, 10 ac or greater, where the producer is currently mowing early (before June 15) and taking at least 2 cuts. Foregone income is for the loss in hay quality due to mowing after Aug 1. Cost share allowed every other year only, for a maximum of 3 years.

Biomass Harvest

- For clearing forested areas, greater than 4 inches DBH, where commercial saw timber is not present and the whole trees are chipped and going to a biomass plant. Adequate woody material must remain on the forest floor per the specification and job sheet.

Light Mechanical

- For mowing or removing woody material, up to 2" that cannot be accomplished with a brush hog. This requires a fecon-type mower, brontosaurus or chainsaw.

Medium Mechanical

- For mowing or removing woody material, between 2" and 4" that cannot be accomplished with a brush hog. This requires a fecon-type mower, brontosaurus or chainsaw. This scenario cannot be used for biomass market cuts.

Heavy Mechanical High Intensity Cut

- For clearing moderately or heavily-stocked forested areas, greater than 4 inches DBH with poor quality trees; or extreme distance from markets (e.g., Cape Cod). Site may have cordwood, but should have minimal saw logs. This scenario cannot be used for biomass market cuts.

Table A-3.—Volume in board feet (International ¼-inch rule) by d.b.h. and number of 16-foot logs to an 8.0-inch top diameter inside bark (d.i.b.) (Gevorkiantz and Olsen 1955, Wenger 1984)

D.b.h. Inches	Number of 16-foot logs							
	1/2	1	1 1/2	2	2 1/2	3	3 1/2	4
	----- board feet -----							
12	30	57	80	100				
13	36	68	96	118	134			
14	42	79	110	140	163	184		
15	50	92	128	160	188	214	232	
16	59	105	147	180	213	247	274	295
17	66	118	166	208	245	281	314	340
18	74	135	188	235	278	320	360	400
19	83	152	212	265	314	360	405	450
20	92	170	236	295	350	400	450	500
21	102	189	262	328	390	450	505	550
22	112	209	290	362	430	495	555	610
23	122	228	316	396	470	540	610	680
24	133	252	346	430	510	595	670	740
25	145	275	376	470	555	645	730	810
26	158	300	410	510	605	700	790	880
27	172	325	440	550	650	760	850	950
28	187	348	480	595	700	810	920	1020
29	203	378	515	640	760	870	990	1100
30	220	410	550	685	810	930	1060	1180
31	237	440	595	740	870	1000	1140	1260
32	254	470	635	790	930	1070	1210	1350
33	270	500	680	840	990	1140	1290	1440
34	291	530	725	900	1060	1210	1380	1530
35	311	565	770	950	1120	1290	1460	1630
36	333	600	820	1010	1190	1370	1550	1725

Table from Leak, W.B.; Yamasaki, M.; Holleran, R. 2014. **Silvicultural Guide for Northern Hardwoods in the Northeast.** US Forest Service. Pg 39.