United States Department of Agriculture
Natural Resources Conservation Service

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Shrubland/Young Forest/Old Fields/Forest Restoration

Early Sucessional Habitat Management 647 Job Sheet NH

Early Successional-Brush Saw -Using a brush saw and/or chainsaw to clear woody vegetation on grasslands or wildlife openings that is 1 to 3" or less in diameter on ground with poor access and/or that is too steep or rocky for rotary mowing. Used to cut trees which are overtopping shrublands. Typical rate 1 acre per day.
Brush Management- Light Mechanical, Rotary mowing to maintain successional habitats, control invasive plants and facilitate grazing. Vegetation is mostly woody stems less than 2 inches in diameter.
Early Successional Delayed Mow -Typically done in old agricultural fields to maintain them as open grassland for ground-nesting birds. Mowing must be completed after the ground-nesting birds have fledged, usually after August 1, but before snow fall for maximum vegetation management benefit. Typical size is 10 acres.
Early Successional-Average Site, typically done with a brontosaurus at an average rate of 2-3 acres per day, average diameter is generally less than 3 inches.
Early Successional Moderate Site- typically done with a brontosaurus at an average rate of 1-2 acres per day, average diameter generally 3-6 inches.
Early Successional Difficult Site- Regeneration cutting of forest stands which are not economically viable as a result of past high grades. Typically done with a feller buncher and whole tree chipper where the average diameter is larger than 6 inches at an average rate of 1 acre per day.
Restoration and Management of Declining Habitats Chainsaw Clearing Includes chainsaw work for clearing sites in inaccessible/inoperable areas for New England Cottontail.

Goals:

- **Cut pole sized stands of Aspen-Birch or Red Maple, to maintain early successional condition.**
- **Remove poor quality trees to allow the site to regenerate to more valuable timber species.**
- **Maintain old field conditions by delayed mowing or rotary mowing**
- **Maintain thickets, increase shrub stem density and improve wildlife cover**
- **Develop transition zones at least 50ft wide between agricultural fields, wetlands, and mature forest**
- **Increase the size of existing early successional areas (power lines, shrub wetlands, old fields)**
- **Control Invasive Species and Increase Native Species Dominance**
- **Create several small ¼- ½ acre openings for interior forest birds and sugar maple or spruce-fir regeneration**
- **Create Medium 2+ acre openings wildlife**
- **Create Large 5+ acre openings for shrubland birds and other declining wildlife**
- **Create travel corridors for pollinators between wetlands and/or other crop fields**
- **Release understory shrubs and increase soft mast (fruit)**
- **Increase light to high tunnels and crop fields**
- **Simulate fire by cutting fire-intolerant vegetation on sandy outwash soils**

- **Restoring high-graded forests by heavy cutting of undesired tree species and leaving seed trees.**

Target Species for Cutting :	**Species Not to Cut:**	**Considerations:**
✓ Aspen-Birch ✓ Red Maple, Norway Maple ✓ Poor Quality White Pine ✓ Beech-diseased ✓ Sumac (*Rhus* sp.) ✓ Alders (*Alnus sp.)* ✓ Cherry (*Prunus sp.)*Choke, Black, Pin) ✓ Old Shrubs- (thick stems, horizontal growth, tree-like) ✓ Trees beginning to overtop shrublands	Large Mast Producing Trees Snags, Nest or Perch Trees Pole or bigger sized -Sugar Maple, Yellow, Black or White Birch, Ash, Hickory Valuable Timber Within 50 feet of streams Over 50% of basal area in NH Shoreland Fire tolerant Pitch Pine, Red Pine, and Black Oak "Native Shrubland/ Young Forest Islands" within grasslands for wildlife Within 500 Ft from Vernal Pools	✓ Cut woody vegetation in a dormant state (winter) ✓ Mow outside of nesting season April 1- Sept 1 (after hard frost for pollinators) ✓ Leave Woody material ✓ Control Invasive Plants ✓ Opening sizes for species regeneration and desired wildlife ✓ Cut in phases to leave habitat for resident species and create a matrix of age classes. ✓ Understory shrub species to be released ✓ Create irregular square shaped openings ✓ Avoid long-narrow rectangular shapes with increased edge for predators.

Landscape Perspective:

Note sizes and types of habitats within 1/2 mile to 1 mile of the property:
Young Forest > 5 acres, Grasslands/ Old Fields > 5 acres or > 20 acres, Shrublands and Thickets, Uneven Aged Forests > 10 acres, Talus Mountain Sides,

Site Selection:

Wet Sites: Important Forest Soil Group (IIB), Poorly Drained Only, Red Maple, Alder, Dogwoods, Viburnums, High Bush Blueberry, Willow etc. Typically productive areas for wildlife, best managed for thickets and shrublands especially between open water features and mature forest- Unproductive for most valuable tree species, except spruce-fir.

Rich Loamy Hillsides, Floodplains, Terraces: Important Forest Soil Group (IA), Outstanding hardwood crop tree potential. Create openings (1/4-10 acres) to regenerate important crop trees and benefit interior forest wildlife. Control Invasive Plants.

Glacial Till: Important Forest Soil Group (IIA). Productive sites for Hardwoods and White Pine crop trees. High-graded sites are Beech-Hemlock-Red Maple, create large openings and leave desired crop trees such as Pine, Oak, and Birch.

Sandy, Fire Dependent: Important Forest Soil Group (IC). Productive for White Pine and sometimes Oak. In areas of poor quality timber, cut fire intolerant vegetation and encourage Pitch Pine, Red Pine, Oak, Hazelnut, Low Bush Blueberry, raspberries, areas of bare sand and warm season grasses. These areas also have potential to be managed for Aspen-Birch young forest if clear-cut.

Bedrock: Important Forest Soil Group (IIB). Highly variable sites with steep slopes, inoperable ground, & highly erodeable soils. Flat areas often contain seeps and vernal pools. Shallow bedrock <20" greatly reduces productivity and successional habitats persist.