**Section 1536.30 Planting Trees and Direct Seeding**

The purpose of these practices is to establish a stand of forest trees for timber production and compatible natural resource conservation.

a) During Plan review, the IDNR Forester shall verify the suitability of the land for site preparation and tree planting, considering soil erodibility and necessary soil stability practices, timing and ground cover requirements.

b) Cost-share is not authorized for:

1) Planting fewer than 436 trees per acre unless the Plan is specifically amended later, under subsections (c)(2)(E)(iii) and (c)(3).

2) Planting or culture of fruit or nut orchards, windbreaks, Christmas trees, ornamental trees, landscaping or legally regulated mitigation projects.

3) Irrigation of planted trees.

4) Tree, shrub or other plant species not approved by the IDNR Forester.

5) More than one method (subsection (c)(2), (c)(3) or (c)(4)) of establishing a stand of trees.

c) Cost-Share Rates/Specification:

1) Site Preparation – Flat rate payment for this practice is a variable amount ranging from $30 to $495 per acre. The base cost is a variable amount ranging from $40 to $660 per acre. The Plan preparer conducts a careful field inspection of current vegetative cover on the site to determine the appropriate category and cost-share rate (see subsection (c)(1)(A)). Treatment is to be applied to/attempted for all target species present and is to result in a minimum mortality or effective control rate of 85%.

A) Cost-share Categories and Cost-share Payment Rates

|  |  |  |  |
| --- | --- | --- | --- |
|  | Category | Flat Rate/A. | Base Cost/A. |
|  |  |  |
| i) | Primarily annual vegetation rutting or heavy residues that will cause some difficulty in normal planting. | $30 | $40 |
|  |  |  |
| ii) | 60% or more of area in perennial grasses and/or broadleaf herbaceous plants, or up to 40% of area in light woody cover, stems 2 inches or less diameter at ground line. | $60 | $80 |
|  |  |  |
| iii) | More than 40% of area occupied by woody vegetation, briars, vines or woody stems 2 inches diameter or less at ground line, but can include up to 50 stems per acre greater than 2 inches at ground line. | $90 | $120 |
|  |  |  |  |
| iv) | More than 40% of area occupied by woody vegetation greater than 2 inches diameter at ground line, or more than 75 stems per acre greater than 2 inches diameter at ground line. | $180 | $240 |
|  |  |  |
| v) | More than 80% of area occupied by woody vegetation greater than 2 inches diameter at ground line, or more than 200 stems per acre greater than 2 inches diameter at ground line. | $495 | $660 |

B) This practice may only be approved for acres having undesirable or competing vegetation or residue (such as grass sod, perennials and/or annual broadleaved plants and trees and/or shrubs). Practice acres will be planted to stock desirable tree species.

C) Measures and practices necessary to minimize erosion must be undertaken according to prescribed specifications set forth in the Plan.

D) Site preparation may be undertaken mechanically with machinery or by chopping, cutting or sawing and may include use of herbicides and/or prescribed fire. Aerial spray applications (herbicides by helicopter or fixed-wing plane) will not be approved for more than the $180 per acre rate established in subsection (c)(1)(A)(iv).

E) One approved category and practice is allowed once in any 10 year period unless specifically approved by the IDNR Forester, based on the standards in subsection (c)(2)(F), due to practice failure from extreme natural causes.

2) Tree Planting Bare Root Stock (Trees and Labor) – Flat rate payment for purchasing and planting stock is a variable amount ranging from $300 per acre using 436 trees per acre (base cost $400/acre) to $619 per acre using 900 trees per acre (base cost $825/acre).

A) Selected tree species and seed sources of stock to be planted must be used and must be established in accordance with the Plan specifications and subsection (c)(2)(F)(i).

B) All planted trees must be tightly packed and firmly adhered to the soil at the proper depth, regardless of type of planting machinery, augers, hand tools or other methods of physical planting used.

C) At least 90% of the conifer stock must be not less than 3/32 inch in caliper as measured at 1 inch above the root collar. At least 90% of the hardwood stock shall be no less than 7/32 inch caliper as measured at 1 inch above the root collar . Hardwood stock purchased from private nurseries from the 12-18 inch height category or larger as described in the nursery's catalog or other written description are considered to meet the 7/32 inch caliper requirement.

D) Seedling stock seed source must originate within 100 miles north or 200 miles south of the planting site, unless otherwise specified in the Plan.

E) Spacing requirements are as follows:

i) Plant seedlings 6 to 12 feet apart in rows 6 to 12 feet apart. Plant at least 436 and no more than 1210 trees per acre (however, the cost-share will consider no more than 900 trees per acre (see subsection (c)(2)).

ii) Underplantings may be approved for less than 436 trees per acre and only within wooded areas receiving at least 40% direct sunlight.

iii) Variations in these spacing and seedling density standards may be made in accordance with the Forestry Management Plan (Plan) created under 17 Ill. Adm. Code 1537 and approved by the IDNR Forester.

iv) Cost-share for plantings greater than or less than 436 trees per acre will be prorated at $0.69 per tree, not to exceed 900 trees per acre.

F) Stocking and Replanting Requirements

i) A minimum survival rate of 70% of the planted stock specified must be maintained for the 10 year lifespan of the practice. Natural regeneration of acceptable species may be used to supplement minimum survival of planted trees if approved by the IDNR Forester, based on soil type, drainage, soil productivity and other growing conditions.

ii) If 70% of the prescribed stand is not obtained, or if a stand deteriorates to less than 70% within the first or second growing seasons, cost-share assistance for replanting may be available when stocking losses are due to extreme natural causes, such as drought, flood, hail, depredation or similar occurrences.

iii) Cost-share will not be authorized for planting failures due to improper Plan implementation or factors within the control of the timber grower.

3) Tree Planting Containerized Stock (Trees and Labor)

Flat rate payment for this practice is $315 per acre. The base cost for this practice is $420 per acre.

A) Planting of containerized stock may be used in addition to natural regeneration or certain other, non-cost-shared reforestation methods when approved by the IDNR Forester as part of a Plan.

B) This practice is limited to areas that will naturally regenerate within 3 years. A seed source for desirable natural regeneration must be within 200 feet of the planting area. A combined minimum of 500 acceptable desirable trees per acre must be present 3 years following planting and must be maintained for the 10 year lifespan of the practice.

C) Containerized trees must be hard mast producing species, such as oak, black walnut, hickory or others that are at least 2 gallon sized and have a planted height of no less than 3 feet and a caliper no less than 3/8 inch as measured 1 inch above the root collar.

D) Tree seed source must be within 100 miles north or 200 miles south of the planting site, unless otherwise specified in the Plan.

E) Plant trees 20-80 feet apart in rows 20-80 feet apart so that at least 28 planted trees are well distributed throughout each planted acre.

F) Underplantings may be approved for fewer than 28 trees per acre. Underplantings must receive at least 40% direct sunlight. The cost-share rate for planting fewer than 28 trees per acre will be prorated down using the 28 tree stocking level as the basis.

4) Direct Seeding Component (Seed and Labor)

The flat rate payment for this practice is $100 per acre for free or collected seed or $250 per acre for purchased seed stock. The base costs for this practice are $133 per acre for free or collected seed and $333 per acre for purchased seed.

A) Direct seeding may be used in lieu of seedling planting when approved by the IDNR Forester as part of a Plan.

 AGENCY NOTE: Reference for Direct Seeding

R. Herman, D. Schmoker, B. Sloan and T. Ward, 2003 Illinois Direct Seeding Handbook, A Reforestation Guide, Illinois EPA and USDA Natural Resources Conservation Service, Champaign IL.

B) Spacing Requirements

i) Plant seeds 1 to 2 feet apart in rows 6 to 12 feet apart. Plant at 3,000 to 4,800 hard mast seeds per acre. Soft mast species seeds may be planted in addition to or instead of hard mast species, depending on site conditions.

ii) Variations in spacing and seed density standards may be made in accordance with written recommendations approved by the IDNR Forester. Flat rate payment for planting greater than or less than 3,000 seeds per acre will be prorated using 3,000 seeds as the basis. Natural regeneration may be used as a supplement to planting if prescribed in an approved Plan.

C) Stocking and Replanting Requirements

i) A minimum germination and survival rate of 1,000 planted seeds must be maintained for 2 growing seasons. Natural regeneration of acceptable species may be used to supplement germinated growing stock.

ii) If 1,000 seedling trees are not germinated and growing after the first and second growing seasons, cost-share assistance for replanting may be available, subject to IDNR Forester approval, when stocking losses are due to extreme natural causes such as drought, flood, hail, depredation or similar occurrences.

iii) Cost-share will not be authorized for planting failures due to improper Plan implementation or factors within the control of the timber grower.

iv) Cost-share assistance for replanting is only available once. If fewer than 300 acceptable trees are present after 3 growing seasons, seedling tree planting must be done (see subsection (c)(2)) by planting bare root stock.

D) The seed source must be within 100 miles north or 200 miles south of the planting site, unless otherwise specified in the Plan.

E) Measures to protect seed from depredation must be prescribed in the Plan.

F) Site preparation measures must be implemented as described in the Plan before direct seeding.

5) Control of Undesirable Vegetation – The flat rate payment for this practice is $40 per acre with herbicides or $60 per acre with mulch and/or weed control fabric. The base cost for herbicides is $53 per acre and for mulch or fabric is $80 per acre. Treatment is to be applied to/attempted for all target species present and is to result in a minimum mortality or effective control rate of 85%.

A) Application of appropriate herbicide products that are labeled and approved by the Illinois Department of Agriculture for this use may be applied before, after or at the time of planting, as outlined in the Plan or approved by the IDNR Forester. Continuously treated bands 4-6 feet wide or spot treatments 16-36 square feet in size must be used. Narrower or smaller and wider or larger treatment coverage and broadcast herbicide applications must be detailed in the Plan or approved by the IDNR Forester.

B) Organic mulches or water permeable cloth or fabric may be used in combination with herbicides or in lieu of herbicides. Continuous mulch of fabric bands 4-6 feet wide or spot treatments 16-36 square feet in size must be used. The depth of mulch must be maintained at 4-10 inches deep for 2 growing seasons. Fabrics must be kept secured and functional for 2 growing seasons.

C) Undesirable vegetation must be controlled, if prescribed in the Plan, in order to receive approval for site preparation and planting cost-share payments. Two additional applications, within 5 years after the original stocking, to control undesirable vegetation may be required by the IDNR Forester and determined eligible for cost-share payment.

(Source: Amended at 41 Ill. Reg. 4272, effective March 31, 2017)