Tree Planting in North East Iowa

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REFORESTATION TECHNIQUES

- Seedling Planting
- Direct Seeding
Management Plan – Road Map to a Successful Planting Project

- Addresses landowner objectives
- Describes site (soils, drainage, aspect etc.)
- Provides site preparation instructions (mowing, spraying, seeding, diskng, etc)
- Provides information on what and how to plant (species, spacing, location, etc.)
- Provides maintenance information (mowing, spraying)
Seedling Planting
Cover Crops
Seeding

- Perennial rye
- Timothy
- Oats
- **Want only enough cover to prevent soil erosion. Seeding too heavy creates unwanted competition**
Spacing

- Between row spacing will vary depending on equipment
- Plant 550 to 800 seedlings per acre
  - Eight to twelve feet between rows and four to ten feet between plants within the row.
Site Prep Spraying

- **Crop ground**
  - Princep & Pendulum at 3-4 quarts per treated acre

- **Pasture/Brome**
  - Add 2 quarts Roundup per treated acre
  - Mow grass prior to spraying and allow at least a 2 week to regrow
Tree Planting Stock

- **Not All Seedling Are Created Equally!**
- Seedlings
- Transplants
- Potted
- Container Grown
Seedling Care
Tree Planting

- Not All Tree Planters Are Created Equally
Maintenance

- Most common mistake landowners make in tree planting is failure to maintain the planting.
- Weed control is critical for the first 3 to 5 years of the planting.
- Spray maintenance will depend upon the type of weed control problem you have.
- Common maintenance herbicides are Oust, Princep, and Pendulum
- Your goal is weed suppression, not total eradication
Advantages of Seedlings

- Diversity of species in your planting
- Seedlings are generally always available from somewhere
- If a species does poorly it can be replanted or replaced
- Less Site Disturbance (Flood plain/Steep slope)
Disadvantages of Seedlings

- Usually 5 years of weed control
- Stands are less dense and take longer to fill in
- A lot of the work is done by hand or with small equipment
Direct Seeding
Site Prep For Direct Seeding

- Expose mineral soil
- If in grass: mow, spray, plow, disk
  - Roundup grass
  - 2, 4-D legumes
- If in crop stubble: disk once or twice and seed
How Much Seed

- Oak – 0 to 4 bushel/acre
- Black Walnut – 5 to 10 bushel/acre
- Ash – ½ to 1 bushel/acre
- Black Cherry – ? ¼ to ½ pound/acre
Where Do You Get Seed?

- Seed Dealers
- Forestry Consultants
- Collect it yourself – Seed Drop Late August to Late November
Seed Handling

- Collect as soon as possible after seed drop
- Store acorns in breathable bags (onion bags, burlap sacks, or woven poly seed sacks)
- Immerse acorns in water for 12-14 hours immediately after harvest, drain bags, store in cool dark place
- Ash & Maple – Air dry and store in cool dry place
Weed Control

- **Year One (Spring after seeding)**
  - Pendulum 2 quarts per acre
  - Mow high for tall weeds
  - **Mid-June**
  - Transline/Fusilade $\frac{1}{2} - \frac{3}{4}$ pint/acre for broadleaves and $\frac{3}{4}$ pint/acre for grasses (can be applied over germinating seedlings)
  - Weeds should be less than 12” tall
- Year Two – Fall or early Spring
  - 3 quarts Princep + 3 quarts Pendulum per acre
- Repeat Transline/Fusilade if needed
Lack of Weed Control = Lack of Success

- Year Three – Fall or early Spring
  - ½ Ounce Oust per acre
Advantages of Direct Seeding

- Quicker Establishment (usually)
- Higher Density - More self pruning
- More Natural Appearance
- Better Use of Natural Selection
Disadvantage of Direct Seeding

- Inconsistent Seed Availability
- Exposure of Mineral Soil on Steep Slopes
- May Not be Suitable for Flood Plain
- Lack of Control Over Species Mixture
What We Have Learned

- Both systems work
- Costs are similar
- Know you site!
- Oak needs help!
Give Your Oaks a Name
Reforestation advice and planning is available through your IDNR District Forester or through private forestry consultants.