Right Tree, Right Place, Right Time: The Target Plant Concept

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The Target Plant Concept

- Not a new idea...
 - ~35 years Target Seedling Symposium
 - Dumroese et al. (2016) Reforesta 1: 37–52
 - https://www.fs.usda.gov/research/treesearch/52082
- Novel not a linear relationship
 - Feedback loop is critical
- Quality more important than appearance

The Target Plant Concept



1. What are the objectives?

- Reforestation
- Biodiversity enhancement / endangered species
- Climate change mitigation
- Biofuel production
- Recreation
- Watershed
- Plantation vs. natural



2. Site conditions?

- Site history
- Soils
- Current climate / microclimate
- Vegetation
- Accessibility

3. Limiting factors?

- Vegetation competition
- Soil physical and chemical properties
 - pH, organic matter, contaminants
 - Moisture content
- Climate
 - Frost pocket, wind, aspect
- Site prep (or lack of)
- Browse
- Accessibility
- Cost
- Organization capacity



4. Mitigating limiting factors?

- Site preparation
 - Herbicide treatments
 - Scalping / mounding
 - Fertilization
 - Prescribed fire
 - Maceration
- Fencing



5. Species and genetics?

- Native or introduced
- Seed transfer guidelines
 - Lat, Long, Elevation
- Orchard or wild
- Dioecious
 - Especially cuttings





6. Stocktypes?

- Seeds
- Bareroot
- Container
- Bareroot—container "hybrids"
- Root stock
- Non-rooting cuttings









7. Tools and techniques

- Hand
- Machine









8. Window?

- Fall
- Spring
- Summer
- Winter

