

Using the **Target Plant Concept** to improve restoration planting success

Anthony S. Davis

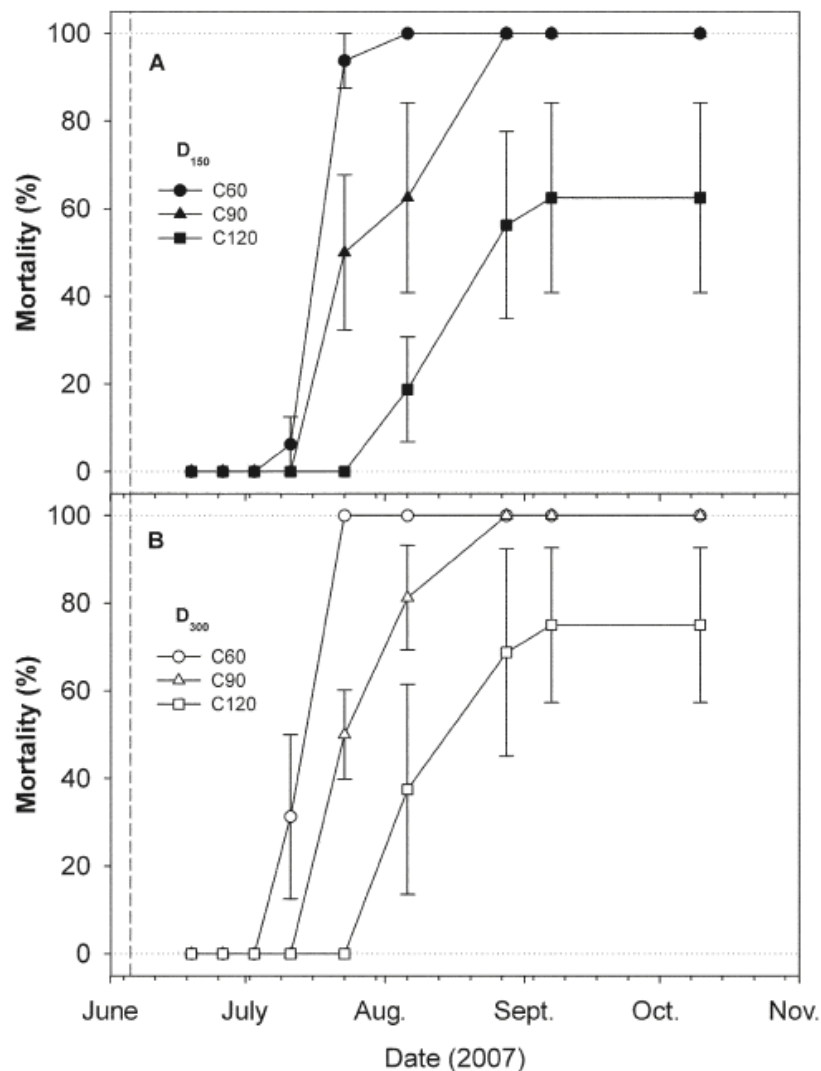
Center for Forest Nursery and Seedling Research
College of Natural Resources
University of Idaho, Moscow, Idaho

Traditional model



Traditional model?

Fig. 2. Mortality levels for C60 (circles), C90 (triangles), and C120 (squares) seedlings in D_{150} (solid symbols, A) and D_{300} (open symbols, B) competition treatments over the course of the 2007 growing season. Vertical broken line indicates time of seedling planting (June 5). No mortality was observed in D_0 . Container volumes of 60, 90, and 120 cm^3 are represented by C60, C90, and C120, respectively. Competition treatments of 0, 150, and 300 winter wheat (*Triticum aestivum*) plants- m^{-2} are represented by D_0 , D_{150} , and D_{300} , respectively.



(Pinto *et al.* 2011)

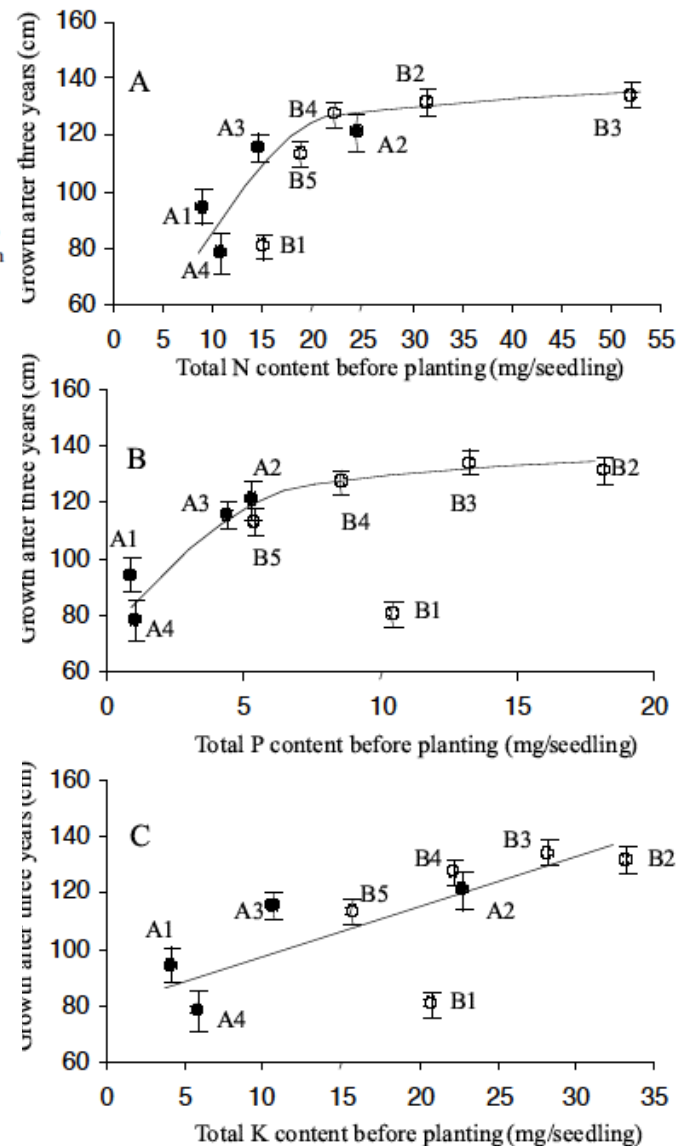


Figure 3. Relationship between whole seedling nitrogen content (A), phosphorus content (B) and potassium content (C) before planting and height 3 ears after planting. Filled circles, nursery A; empty circles, nursery B.

Puertolas *et al.* 2003. *Forestry* 76: 159 – 168

Target Plant Concept

- Quantifiable seedling attributes that are linked to outplanting success



Tenets of the Target Plant Concept

- Objectives and Constraints
- Source of Plant Material
- Limiting Factors on the Outplanting Site
- Stocktype and Plant Quality
- Outplanting and Follow-up Practices

