Structured Experience 10.1
Conversion Red Pine to Aspen

Continued from Structured Experience 5.1: After the red pine was harvested, the area grew back to aspen. Estimate the change in water yield that will occur as a result of this change in forest type. Assume that the precipitation is about 35 inches and that the stand will develop to about the same basal area as existed for the red pine. You may need to review some of the information presented in Structured Experience 5.1 to complete this exercise.

Goals

To apply interception information to a management situation.

Group Size

Groups of six each.

Time Required

Approximately one hour.

Additional Materials

One copy of Figures 1 and 2 from Verry (1976) for each participant (pages 2 and 3).

Process

Conversion Pine to Aspen

1. The facilitator gives a lecturette on the effects of converting pine to aspen on runoff using Verry (1976) (15 min).
2. The facilitator asks the participants to complete the exercise (15 min).

Red Pine

$S_R = 0.02P - 0.076$

$T_R = -1.02934 - 0.00422P$

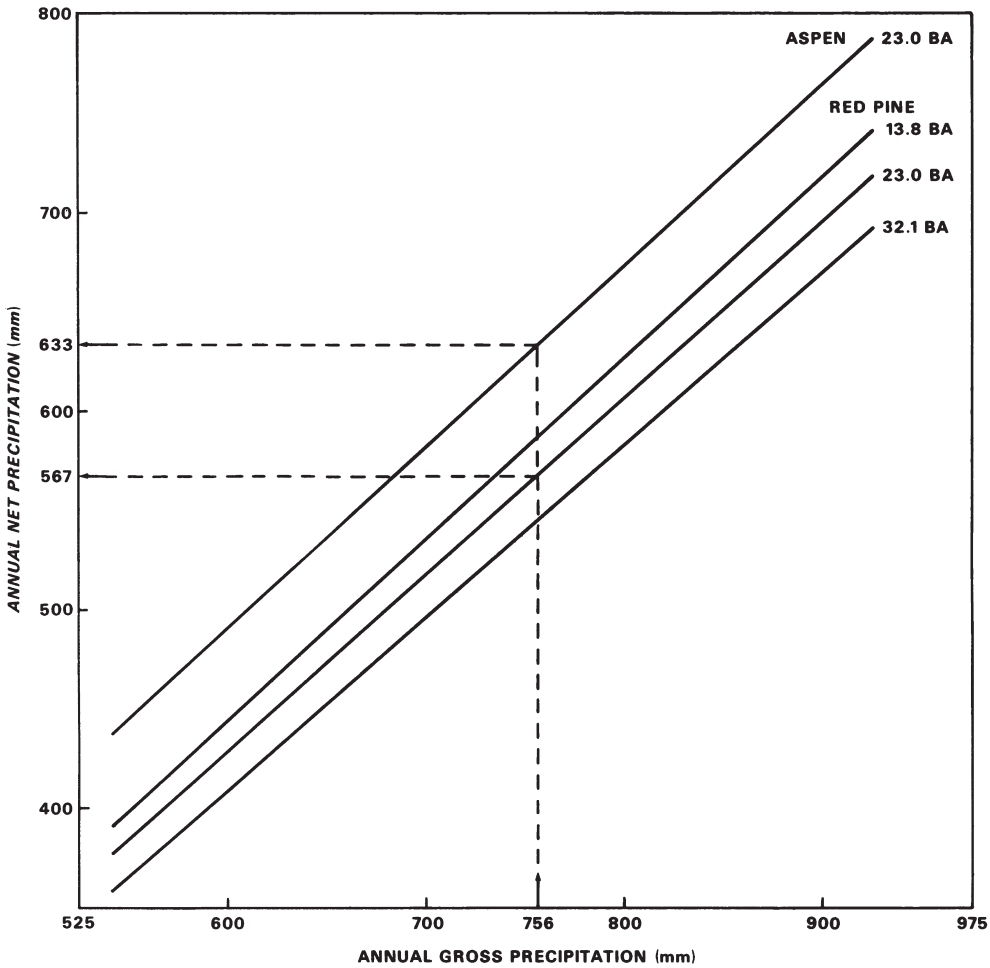

Figure 1 The relation between net and gross annual precipitation for aspen and red pine forest (from Verry, 1976).

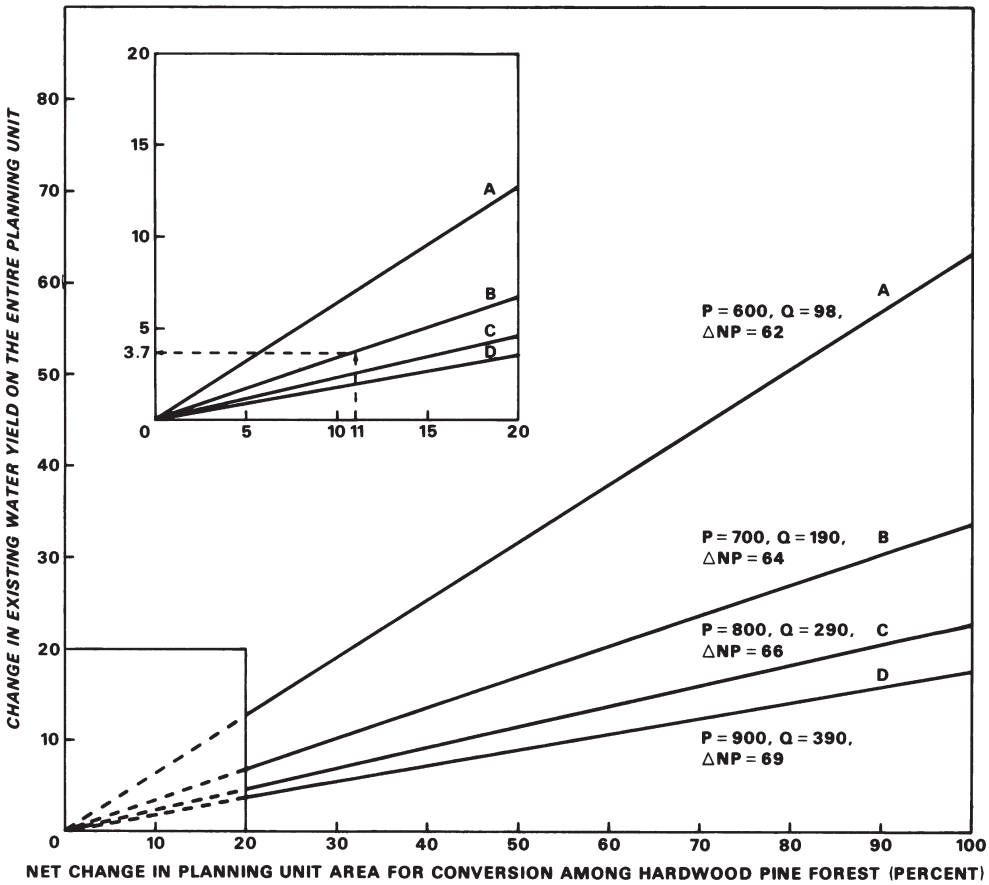

Figure 2 The relation between net percent change in unit area and percent change in existing water yield for hardwood-pine conversions (from Verry, 1976).