

Results of Experimental Seeding on Opposing Wave Plantations--  
Kirtland's Warbler

Doug Pavlovich  
6/18/90

Locations of test plots:

- 1) T26N, R3W, Sec. 15, SE 1/4 of NW 1/4, Crawford County
- 2) T26N, R3W, Sec. 25, SW 1/4 of NW 1/4, Crawford County

Size of test plots:

10--.4 Acres plots at each location=8A--plots were approximately 99' x 175' with plot center being at narrow intersection of two openings. (see sketch)

Plantations were both established in spring 1988 and seeding was done at the rate of 1/2 lb. per acre on 5/18/88. Plots were checked between 5/30 and 6/15/90.

Seedlings on bare mineral soil that were 1 to 10 inches and had what looked to be one or two years growth were assumed to be from seed while those from the planting were in the furrows, 6 to 30 inches tall and looked to have 2 to 4 years growth. (Some took a year or two to get over the shock of transplanting and get back to growing.)

In location #1, seedlings established from seed were extremely few averaging only 10.5 trees per acre. Lowest per plot was 0 and highest was 13 which is 32.5 per acre. The two highest plots (12 & 13 seedlings) were where an old two-track road had passed through and soil had been compacted for many years.

In location #2 results were considerably better, with the low per plot being 9 and the high being 60 (which translated to 150 additional trees per acre). Approximately 90% of the seedlings on this high plot were located in an old two track. A total of 315 seedlings from seed were found in these 10 plots for an average 79 per acre.

Although the high of 150 trees per acre is only a 12.5% increase over the 1200 trees per acre planted, it must be taken into consideration that the planting season of 1988 was during drought conditions. Another consideration is that many of the seedlings from seed seemed to be less than two years old and were apparently from dormant seed, also, and there may be more established from dormant seed in the future.

It should also be mentioned that while a few seedlings from seed were noticed that become established because of a shaded condition or in an area of water collection, the highest success by far was in the soil compacted areas.

I think these plots should be checked at least one more time one or two years from now. My preliminary assessment would be that if denser areas are desired in these plantations and precipitation is "normal", best success would be to seed in compacted areas only, and at possibly a higher seeding rate. In a vast majority of cases the two-tracks are not used after planting due to roughness caused by the close spacing of furrows.

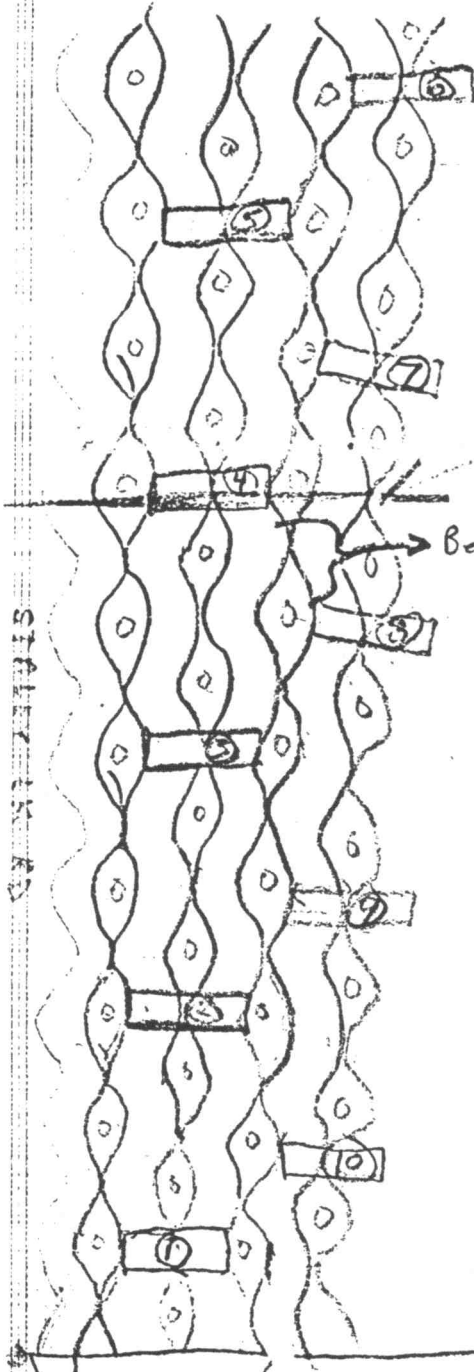
Doug Pavlovich

726-SW Sec. 25 NW 1/4

5-18-88

1/2 lb. J. Pine seed per rectangle

Ave size per rectangle =  
99' x 175' = .4 A



5 rows t-W why? I Don't know

Because of pattern inconsistencies, corners of #4 & #8 are very close.

NW 1/4  
Sec. 25

1990 - suspect seedlings from seed

- 1=9
  - 2=17
  - 3=9
  - 4=60 (approx. 90% in old 2-track) (No numbers on file)
  - 5=19
  - 6=17
  - 7=7
  - 8=55
  - 9=19
  - 10=36
- 315 = 79 per acre

W/4  
Cor.

2ch

PVT.