

AC-10

AC-10

Pinus strobus Ohio Source Test

Copy 1

OHIO AGRICULTURAL EXPERIMENT STATION

WOOSTER, OHIO

White Pine - Ohio Source Test
Plantation AC-10

Planted: 4/20/62, 4/23/62 (5-0 ?)

Replacements: 3/29/63

Spacing: 10' x 10'

Design: Complete randomization

Location: Apple Creek State Hospital,
Apple Creek, Ohio

N



| | C | | | | 4 | | | | 8 | |
|----|---|---|-----|-----|-----|-----|-----|-----|-----|-----|
| R | X | X | X | X | X | X | | X | X | X |
| | X | X | | X | X | X | X | X | X | X |
| | | X | 278 | 282 | 292 | | 282 | 282 | 278 | X |
| | X | X | 278 | | 292 | 287 | 292 | 278 | 292 | X |
| 20 | X | X | 278 | 278 | 278 | 292 | 287 | | 292 | X |
| | X | | | 287 | 282 | | 278 | | | X |
| | X | | 292 | 282 | 282 | 281 | 292 | 278 | 278 | X |
| | X | X | 282 | 278 | 287 | 287 | | 282 | 292 | 281 |
| 24 | X | | 282 | | 287 | 278 | 292 | | 278 | 282 |
| | X | | | 282 | 278 | 292 | 287 | | 282 | 287 |
| | | X | 278 | 278 | 292 | | 282 | 278 | 292 | 292 |
| | X | | 292 | 278 | 278 | | 278 | 292 | 287 | 278 |
| 28 | | | 278 | 282 | | 282 | | 278 | 292 | 282 |
| | X | | 282 | | 278 | 278 | | | 278 | 292 |
| | X | X | | | 278 | 292 | | | 287 | 287 |
| | X | | 287 | 278 | | 287 | 287 | 282 | 278 | X |
| 32 | X | X | | | | 278 | 278 | | 282 | X |
| | X | X | 278 | 287 | | 292 | | | 282 | X |
| | X | | | 282 | 281 | | | 278 | 292 | X |
| | X | X | 282 | 278 | | 287 | 282 | | 292 | X |
| 36 | X | X | | 287 | 278 | 282 | 292 | 278 | 287 | 281 |
| | X | X | 292 | | 287 | 282 | 292 | 278 | | X |
| | X | | | | 292 | | 278 | | 278 | 278 |
| | X | | 282 | 282 | | | 292 | | 287 | X |
| | X | X | X | X | X | X | X | X | X | X |
| | X | X | X | X | X | X | X | X | X | X |

Source information:

| Acc. No. | Location |
|----------|---|
| 278 | Ashland Co., O., Mohican State Forest |
| 281 | Ashland Co., O., Mohican State Forest |
| 282 | Licking Co., O., Fallsbury Twp., Wakatomika Creek (5-tree mixture, actually 282-286) |
| 287 | Columbiana Co., O., St. Clair Twp., Vodrey Horse Farm (T 6N, S3) |
| 292 | Mountain City, Johnson, Tennessee |
| X | Border and filler stock |

| ROW | Column | Source No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
|-----|--------|------------|---|---|---|---|---|----|---|----|---|----|----|----|----|----|----|----|----|-----|----|----|---|
| 25 | 7 | 282 | 3 | 1 | | 1 | 1 | 14 | 3 | 25 | 0 | 4 | 2 | 60 | 3 | 19 | 31 | 0 | 0 | - | - | - | - |
| 24 | | 278 | 1 | 0 | 1 | 1 | 1 | 13 | 3 | 40 | 7 | 5 | 4 | 68 | 10 | 58 | 45 | 0 | 0 | 100 | 20 | 0 | |
| 23 | | 292 | 5 | 1 | | 1 | 1 | 9 | 1 | 34 | 5 | 3 | 4 | 61 | 6 | 51 | 44 | 0 | 0 | 95 | 17 | 0 | |
| 22 | | 282 | 3 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 21 | | 281 | 4 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 20 | | 292 | 5 | 1 | | 1 | 1 | 5 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 19 | | 278 | 1 | 0 | 1 | 1 | 1 | 23 | 3 | 57 | 7 | 5 | 4 | 61 | 12 | 65 | 66 | 0 | 0 | 110 | 24 | 0 | |
| 18 | | 282 | 5 | 0 | 3 | 1 | 1 | 16 | 1 | 36 | 0 | 5 | 2 | 60 | 6 | 44 | 43 | 0 | 0 | - | - | - | - |
| 18 | 6 | 282 | 3 | 1 | | 1 | 1 | 11 | 1 | 28 | 4 | 5 | 3 | 63 | 5 | 33 | 34 | 0 | 0 | 71 | 10 | 0 | |
| 19 | | 281 | 4 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 20 | | 281 | 2 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 21 | | 282 | 3 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22 | | 278 | 1 | 1 | | 1 | 1 | 10 | 2 | 33 | 8 | 6 | 4 | 62 | 3 | 53 | 42 | 0 | 0 | 105 | 20 | 0 | |
| 23 | | 282 | 3 | 0 | 3 | 1 | 1 | 15 | 2 | 38 | 0 | 4 | 2 | 63 | 6 | 45 | 46 | 0 | 0 | 55 | 6 | 0 | |
| 24 | | 278 | 1 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 25 | | 281 | 2 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 26 | | 278 | 4 | 0 | 1 | 1 | 1 | 21 | 4 | 44 | 5 | 5 | 3 | 68 | 6 | 55 | 49 | 0 | 0 | 95 | 17 | 0 | |
| 27 | | 292 | 5 | 1 | | 1 | 1 | 10 | 2 | 28 | 5 | 4 | 4 | 55 | 2 | 48 | 33 | 0 | 0 | 100 | 17 | 0 | |
| 28 | | 278 | 1 | 1 | | 1 | 1 | 11 | 2 | 31 | 6 | 5 | 4 | 60 | 5 | 44 | 37 | 0 | 0 | - | - | - | - |
| 29 | | 282 | 3 | 1 | | 1 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 30 | | 278 | 1 | 1 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31 | | 282 | 1 | 0 | 3 | 1 | 1 | 19 | 4 | 39 | 0 | 5 | 2 | 60 | 6 | 71 | 46 | 0 | 0 | 75 | 12 | 0 | |
| 32 | | 282 | 3 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 33 | | 282 | 5 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 34 | | 278 | 1 | 1 | | 1 | 1 | 11 | 2 | 25 | 6 | 4 | 4 | 60 | 2 | 22 | 27 | 0 | 0 | 95 | 19 | 0 | |
| 35 | | 282 | 3 | 1 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 36 | | 278 | 1 | 1 | | 1 | 1 | 12 | 2 | 46 | 7 | 5 | 4 | 64 | 6 | 83 | 57 | 0 | 0 | 105 | 23 | 1 | |
| 37 | | 278 | 2 | 0 | 1 | 1 | 1 | 15 | 4 | 48 | 5 | 4 | 3 | 68 | 7 | 57 | 51 | 0 | 0 | 95 | 19 | 1 | |
| 38 | | 282 | 3 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 39 | | 282 | 3 | 1 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 39 | 5 | 292 | 1 | 0 | 5 | 1 | 1 | 8 | 2 | 38 | 6 | 5 | 4 | 71 | 3 | 49 | 47 | 0 | 0 | 100 | 19 | 3 | |
| 38 | | 278 | 1 | 1 | | 1 | 1 | 9 | 1 | 21 | 4 | 4 | 3 | 75 | 3 | 16 | 24 | 0 | 0 | 90 | 13 | 1 | |
| 37 | | 292 | 5 | 1 | | 1 | 1 | 14 | 3 | 37 | 0 | 4 | 2 | 65 | 8 | 42 | 43 | 0 | 0 | 85 | 18 | 0 | |
| 36 | | 292 | 3 | 0 | 5 | 1 | 1 | 13 | 1 | 16 | 4 | 5 | 3 | 65 | 3 | 23 | 28 | 0 | 0 | 95 | 16 | 0 | |
| 35 | | 282 | 3 | 1 | | 1 | 1 | 9 | 2 | 14 | 4 | 4 | 4 | 0 | 0 | 0 | 15 | 0 | 0 | 75 | 13 | 0 | |

Row
Column
Source No.

| Row | Column | Source No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-----|--------|------------|---|---|---|---|----|----|----|----|---|----|----|----|----|----|----|----|-----|----|----|----|
| 34 | 5 | 287 | 4 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 33 | | 281 | 2 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 32 | | 278 | 3 | 0 | 1 | 1 | 13 | 3 | 42 | 4 | 5 | 3 | 61 | 5 | 57 | 44 | 0 | 0 | 95 | 21 | 1 | |
| 31 | | 287 | 4 | 1 | 1 | 1 | 11 | 3 | 31 | 5 | 4 | 4 | 59 | 3 | 35 | 35 | 0 | 0 | 95 | 17 | 0 | |
| 30 | | 278 | 1 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 29 | | 292 | 5 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 28 | | 278 | 1 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 27 | | 278 | 1 | 1 | 1 | 1 | 10 | 1 | 36 | 6 | 5 | 4 | 63 | 4 | 56 | 45 | 0 | 0 | 105 | 23 | 0 | |
| 26 | | 282 | 3 | 1 | 1 | 1 | 7 | 1 | 8 | 0 | 3 | 1 | 0 | 0 | 0 | 09 | - | - | - | - | - | - |
| 25 | | 287 | 4 | 1 | 1 | 1 | 13 | 4 | 35 | 6 | 5 | 4 | 74 | 7 | 39 | 42 | 0 | 0 | - | - | - | - |
| 24 | | 292 | 5 | 1 | 1 | 1 | 15 | 5 | 45 | 5 | 4 | 3 | 55 | 8 | 61 | 55 | 0 | 0 | 95 | 23 | 0 | |
| 23 | | 292 | 5 | 1 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22 | | 292 | 5 | 1 | 1 | 1 | 17 | 5 | 39 | 6 | 5 | 4 | 62 | 3 | 59 | 49 | 0 | 0 | 115 | 22 | 0 | |
| 21 | | 278 | 1 | 1 | 1 | 1 | 11 | 3 | 48 | 5 | 5 | 4 | 68 | 9 | 68 | 58 | 0 | 0 | 105 | 20 | 1 | |
| 20 | | 287 | 4 | 1 | 1 | 1 | 12 | 3 | 48 | 5 | 5 | 4 | 63 | 8 | 57 | 61 | 0 | 0 | 110 | 22 | 2 | |
| 19 | | 292 | 5 | 1 | 1 | 1 | 10 | 2 | 31 | 5 | 4 | 4 | 65 | 5 | 45 | 43 | 0 | 0 | 95 | 16 | 0 | |
| 18 | | 281 | 2 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 18 | 4 | 287 | 4 | 1 | 1 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 19 | | 287 | 4 | 1 | 1 | 1 | 8 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 20 | | 292 | 5 | 1 | 1 | 1 | 10 | 2 | 32 | 6 | 4 | 4 | 62 | 5 | 46 | 37 | 0 | 0 | 105 | 20 | 0 | |
| 21 | | 282 | 3 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 22 | | 281 | 2 | 1 | 1 | 1 | 17 | 5 | 47 | 6 | 4 | 4 | 65 | 8 | 71 | 56 | 0 | 0 | 105 | 18 | 0 | |
| 23 | | 287 | 4 | 1 | 1 | 1 | 15 | 4 | 53 | 4 | 5 | 4 | 69 | 5 | 71 | 57 | 0 | 0 | 100 | 21 | 0 | |
| 24 | | 278 | 1 | 1 | 1 | 1 | 10 | 1 | 37 | 5 | 4 | 4 | 60 | 7 | 54 | 43 | 0 | 0 | 100 | 20 | 0 | |
| 25 | | 292 | 5 | 1 | 1 | 1 | 8 | 1 | 17 | 3 | 4 | 3 | 74 | 1 | 28 | 21 | 0 | 0 | - | - | - | - |
| 26 | | 287 | 4 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 27 | | 287 | 4 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 28 | | 282 | 1 | 0 | 3 | 1 | 1 | 22 | 3 | 44 | 0 | 4 | 2 | 58 | 6 | 63 | 50 | 0 | 0 | - | - | - |
| 29 | | 278 | 3 | 0 | 1 | 1 | 1 | 14 | 1 | 35 | 8 | 4 | 4 | 60 | 5 | 49 | 42 | 0 | 0 | 95 | 19 | 1 |
| 30 | | 292 | 5 | 1 | 1 | 1 | 16 | 5 | 36 | 6 | 4 | 4 | 55 | 6 | 49 | 40 | 0 | 0 | 95 | 21 | 1 | |
| 31 | | 287 | 4 | 1 | 1 | 1 | 13 | 1 | 37 | 5 | 5 | 3 | 60 | 6 | 43 | 43 | 0 | 0 | 90 | 16 | 0 | |
| 32 | | 278 | 1 | 1 | 1 | 1 | 10 | 2 | 34 | 5 | 4 | 4 | 60 | 5 | 47 | 44 | 0 | 0 | 95 | 18 | 2 | |
| 33 | | 292 | 5 | 1 | 1 | 1 | 7 | 1 | 12 | 5 | 4 | 3 | 0 | 0 | 0 | 14 | 0 | 0 | 90 | 16 | 0 | |
| 34 | | 292 | 5 | 0 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 35 | | 287 | 4 | 1 | 1 | 1 | 9 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 36 | | 282 | 2 | 0 | 3 | 1 | 1 | 19 | 2 | 43 | 0 | 4 | 2 | 49 | 4 | 56 | 49 | 0 | 0 | 70 | 11 | 0 |

V_{max}

ROW
Column
Source No.

| ROW | Column | Source No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | | | | | | |
|-----|--------|------------|---|---|---|---|---|----|---|----|---|----|----|----|----|----|----|----|----|----|----|----|---|----|---|---|---|----|
| 37 | 4 | 282 | 3 | 1 | | 1 | 1 | 17 | 4 | 37 | 4 | 4 | 3 | 6 | 4 | 6 | 4 | 0 | 4 | 3 | 0 | 0 | - | - | - | | | |
| 38 | | 287 | 4 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| 34 | | 292 | 5 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| 39 | 3 | 287 | 4 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | | | |
| 38 | | 292 | 5 | 0 | 5 | 1 | 1 | 11 | 2 | 4 | 3 | 6 | 4 | 4 | 5 | 4 | 7 | 6 | 6 | 5 | 1 | 0 | 0 | 10 | 5 | 2 | 3 | 0 |
| 37 | | 287 | 4 | 0 | | 1 | 1 | 11 | 3 | 4 | 1 | 7 | 4 | 4 | 7 | 0 | 10 | 6 | 7 | 5 | 6 | 0 | 0 | 11 | 0 | 2 | 3 | 1 |
| 36 | | 278 | 5 | 0 | 1 | 1 | 1 | 17 | 2 | 4 | 5 | 6 | 4 | 4 | 6 | 8 | 6 | 5 | 3 | 5 | 2 | 0 | 0 | 10 | 5 | 2 | 1 | 0 |
| 35 | | 292 | 5 | 0 | 5 | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 34 | | 281 | 2 | 1 | | 1 | 1 | 6 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 33 | | 282 | 3 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 32 | | 282 | 3 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 31 | | 282 | 3 | 0 | 3 | 1 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | | |
| 30 | | 278 | 1 | 0 | 1 | 1 | 1 | 10 | 2 | 3 | 0 | 6 | 5 | 4 | 6 | 2 | 7 | 4 | 6 | 3 | 7 | 0 | 0 | 9 | 5 | 1 | 9 | 2 |
| 29 | | 278 | 4 | 0 | 1 | 1 | 1 | 10 | 2 | 2 | 4 | 2 | 4 | 3 | 6 | 7 | 1 | 2 | 0 | 2 | 9 | 0 | 0 | 7 | 5 | 7 | 1 | 0 |
| 28 | | 281 | 2 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 27 | | 278 | 4 | 0 | 1 | 1 | 1 | 10 | 1 | 4 | 5 | 6 | 4 | 4 | 6 | 1 | 8 | 6 | 7 | 5 | 3 | 0 | 0 | 10 | 0 | 2 | 1 | 1 |
| 26 | | 292 | 5 | 1 | | 1 | 1 | 11 | 2 | 2 | 9 | 6 | 4 | 4 | 6 | 0 | 4 | 3 | 2 | 3 | 7 | 0 | 0 | - | - | - | - | - |
| 25 | | 278 | 1 | 1 | | 1 | 1 | 14 | 3 | 5 | 0 | 7 | 5 | 4 | 6 | 3 | 12 | 5 | 2 | 6 | 1 | 0 | 0 | 10 | 5 | 2 | 2 | 3* |
| 24 | | 287 | 4 | 1 | | 1 | 1 | 10 | 3 | 3 | 7 | 7 | 5 | 4 | 6 | 3 | 7 | 5 | 6 | 4 | 3 | 0 | 0 | 10 | 5 | 2 | 0 | 3* |
| 23 | | 287 | 4 | 1 | | 1 | 1 | 13 | 3 | 4 | 5 | 6 | 4 | 4 | 5 | 7 | 6 | 6 | 8 | 5 | 3 | 0 | 0 | 10 | 5 | 7 | 9 | 1 |
| 22 | | 282 | 3 | 1 | | 1 | 1 | 19 | 5 | 5 | 2 | 6 | 5 | 4 | 6 | 0 | 8 | 6 | 6 | 5 | 9 | 0 | 0 | 10 | 5 | 2 | 0 | 0 |
| 21 | | 282 | 5 | 0 | 3 | 1 | 1 | 10 | 1 | 2 | 0 | 0 | 4 | 2 | 6 | 5 | 3 | 2 | 2 | 3 | 0 | 0 | - | - | - | - | - | |
| 20 | | 278 | 1 | 1 | | 1 | 1 | 12 | 3 | 3 | 9 | 6 | 5 | 4 | 6 | 7 | 7 | 5 | 8 | 4 | 7 | 0 | 0 | 11 | 0 | 2 | 3 | 0 |
| 19 | | 292 | 5 | 1 | | 1 | 1 | 11 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 18 | | 292 | 5 | 1 | | 1 | 1 | 8 | 1 | 2 | 0 | 3 | 4 | 3 | 6 | 0 | 2 | 2 | 9 | 2 | 4 | 0 | 0 | 7 | 0 | 2 | 0 | |
| 18 | 2 | 282 | 3 | 1 | | 1 | 1 | 8 | 1 | 2 | 1 | 5 | 5 | 4 | 6 | 0 | 4 | 2 | 9 | 2 | 6 | 0 | 0 | 9 | 0 | 2 | 0 | 0 |
| 19 | | 287 | 4 | 1 | | 1 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 20 | | 278 | 1 | 1 | | 1 | 1 | 8 | 1 | 3 | 0 | 5 | 4 | 4 | 5 | 9 | 3 | 4 | 1 | 3 | 5 | 0 | 0 | 10 | 5 | 1 | 6 | 1 |
| 21 | | 287 | 4 | 1 | | 1 | 1 | 10 | 1 | 1 | 4 | 5 | 5 | 4 | 6 | 2 | 2 | 2 | 3 | 1 | 7 | 0 | 0 | 10 | 5 | 1 | 7 | 1 |
| 22 | | 282 | 3 | 0 | 3 | 1 | 1 | 11 | 4 | 1 | 9 | 0 | 5 | 2 | 6 | 0 | 2 | 1 | 5 | 2 | 1 | 0 | 0 | - | - | - | - | |
| 23 | | 278 | 1 | 0 | 1 | 1 | 1 | 2 | 5 | 2 | 5 | 5 | 6 | 5 | 4 | 5 | 7 | 10 | 6 | 4 | 6 | 0 | 0 | 11 | 5 | 2 | 2 | 1 |
| 24 | | 292 | 5 | 1 | | 1 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - | |
| 25 | | 282 | 4 | 0 | 3 | 1 | 1 | 16 | 2 | 2 | 8 | 0 | 3 | 1 | 6 | 1 | 5 | 2 | 8 | 3 | 0 | - | - | - | - | - | - | |
| 26 | | 278 | 3 | 0 | 1 | 1 | 1 | 20 | 6 | 4 | 8 | 5 | 5 | 4 | 4 | 5 | 5 | 7 | 3 | 5 | 9 | 0 | 0 | 10 | 5 | 2 | 1 | |
| 27 | | 278 | 5 | 0 | 1 | 1 | 1 | 22 | 8 | 4 | 9 | 4 | 4 | 4 | 6 | 0 | 6 | 6 | 4 | 5 | 6 | 0 | 0 | 11 | 0 | 1 | 8 | 0 |

| Row | Column | Source No. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 |
|-----|--------|------------|---|---|---|---|---|----|---|----|---|----|----|----|----|----|----|----|----|-----|----|----|
| 28 | 282 | | 3 | 0 | 3 | 1 | 1 | 15 | 2 | 31 | 0 | 4 | 2 | 70 | 3 | 23 | 34 | 0 | 0 | 70 | 9 | 1 |
| 29 | 281 | | 2 | 0 | 1 | 1 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 30 | 282 | | 3 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31 | 278 | | 1 | 1 | | 1 | 1 | 6 | 1 | 25 | 6 | 5 | 4 | 65 | 2 | 51 | 36 | 0 | 0 | 100 | 21 | 1 |
| 32 | 292 | | 5 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 33 | 287 | | 4 | 1 | | 1 | 1 | 15 | 2 | 39 | 6 | 5 | 4 | 60 | 7 | 65 | 49 | 0 | 0 | 95 | 22 | 2 |
| 34 | 282 | | 3 | 0 | 3 | 1 | 1 | 15 | 2 | 33 | 0 | 4 | 2 | 77 | 5 | 38 | 37 | 0 | 0 | - | - | - |
| 35 | 278 | | 1 | 0 | 1 | 1 | 1 | 12 | 1 | 20 | 5 | 4 | 3 | 65 | 1 | 21 | 23 | 0 | 0 | 100 | 18 | 0 |
| 36 | 287 | | 4 | 1 | | 1 | 1 | 8 | 1 | 21 | 5 | 4 | 4 | 57 | 3 | 27 | 27 | 0 | 0 | 105 | 18 | 1 |
| 37 | 292 | | 5 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 38 | 287 | | 4 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 39 | 282 | | 2 | 0 | 3 | 1 | 1 | 25 | 2 | 47 | 6 | 4 | 4 | 45 | 6 | 75 | 54 | 0 | 0 | 105 | 20 | 0 |
| 39 | 282 | | 3 | 1 | | 1 | 1 | 10 | 2 | 22 | 0 | 5 | 2 | 78 | 3 | 26 | 30 | 0 | 0 | - | - | - |
| 38 | 278 | | 1 | 1 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 37 | 292 | | 5 | 0 | 5 | 1 | 1 | 18 | 3 | 48 | 5 | 4 | 3 | 60 | 10 | 69 | 61 | 0 | 0 | 100 | 19 | 1 |
| 36 | 287 | | 4 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 35 | 282 | | 5 | 0 | 3 | 1 | 1 | 14 | 1 | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 34 | 287 | | 4 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 33 | 278 | | 1 | 0 | 1 | 1 | 1 | 16 | 2 | 47 | 6 | 5 | 4 | 63 | 9 | 55 | 58 | 0 | 0 | 105 | 19 | 2 |
| 32 | 282 | | 3 | 1 | | 1 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 31 | 287 | | 4 | 0 | | 1 | 1 | 13 | 1 | 36 | 6 | 5 | 4 | 55 | 6 | 48 | 49 | 0 | 0 | 105 | 20 | 0 |
| 30 | 292 | | 5 | 1 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 29 | 282 | | 3 | 1 | | 1 | 1 | 10 | 3 | 30 | 0 | 4 | 2 | 61 | 4 | 51 | 34 | - | - | - | - | - |
| 28 | 278 | | 1 | 1 | | 1 | 1 | 7 | 1 | 29 | 6 | 4 | 4 | 60 | 1 | 27 | 21 | 0 | 0 | 90 | 15 | 1 |
| 27 | 292 | | 5 | 1 | | 1 | 1 | 10 | 1 | 29 | 6 | 4 | 4 | 63 | 2 | 25 | 25 | 0 | 0 | 100 | 18 | 1 |
| 26 | 278 | | 1 | 0 | 1 | 1 | 1 | 18 | 2 | 43 | 6 | 5 | 4 | 52 | 4 | 69 | 54 | 0 | 0 | 105 | 22 | 1 |
| 25 | 282 | | 3 | 0 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 24 | 282 | | 3 | 1 | | 1 | 1 | 10 | 2 | 32 | 0 | 4 | 2 | 62 | 4 | 51 | 40 | 0 | 0 | 55 | 8 | 0 |
| 23 | 282 | | 5 | 0 | 3 | 1 | 1 | 22 | 2 | 49 | 6 | 5 | 4 | 62 | 7 | 40 | 56 | 0 | 0 | 105 | 18 | 1 |
| 22 | 292 | | 5 | 1 | | 1 | 1 | 12 | 3 | 27 | 0 | 4 | 2 | 62 | 2 | 44 | 34 | 0 | 0 | 85 | 13 | 0 |
| 21 | 282 | | 3 | 1 | | 0 | 0 | - | - | - | - | - | - | - | - | - | - | - | - | - | - | - |
| 20 | 278 | | 4 | 0 | 1 | 1 | 1 | 23 | 3 | 51 | 6 | 5 | 4 | 56 | 6 | 59 | 62 | 0 | 0 | 105 | 20 | 1 |
| 19 | 278 | | 2 | 0 | 1 | 1 | 1 | 16 | 2 | 37 | 6 | 5 | 4 | 64 | 5 | 43 | 45 | 0 | 0 | 110 | 17 | 0 |
| 18 | 278 | | 1 | 1 | | 1 | 1 | 11 | 2 | 40 | 6 | 5 | 4 | 54 | 5 | 59 | 52 | 0 | 0 | 85 | 17 | 0 |

* Means second year cones present (column 16)

Chronological Notes AC-10

1. Trees planted 4/20/62 and 4/23/62. X = Border tree or filler
1 = 278
2 = 281
3 = 282
4 = 287
5 = 292

2. Survival 11/5/62. 1= alive 0= dead
3. Replacements 3/29/63. x= replacement
4. Survival 10/30/63. 1= alive 0= dead
5. Survival 3/24/65 1= alive 0= dead

- Checked for flowering - no flowers present 6/9/65

6. Height - (ft x 10) 6/24/65
7. Length of longest branch - second whorl from top - (ft x 10)
6/24/65.

Checked for flowering - no flowers present. 6/15/67.

8. Height (feet x 10) 9/18/67

9. Mature needle color (1 = yellow, 10 = dark blue-green)
7/22/68

10. Current year's needle color (1 = yellow, 10 = dark blue-green)
7/22/68

11. Disease 7/22/68
1 = Diseased--Current year's needles only, needles chlorotic, tree apparently stunted.
2 = Questionable--Current year's needles only, needles may or may not be chlorotic, apparent stunting of current season's growth.
3 = Questionable--At least a portion of mature needles retained, current year's growth questionable as to stunting.
4 = Healthy--Needles green with most needles being retained.

12. Branch angle of third whorl 7/23/68.
13. Number of branches of third whorl 7/23/68.
14. Length of the longest branch of third whorl 7/23/68.
15. Height (ft. x 10) 1/21/69
16. Number of 1st-year cones 8/70
17. Number of 2nd-year cones 8/70.
18. Height (Nearest 0.5 meter x 10) 6/25/80
19. Diameter (Nearest centimeter) 6/25/80
20. Cone production (0 = none to 3 = heavy) 6/25/80

Operations Log - AC-10

1. Planted 4/20 & 23/62
2. Fertilized, Spring 1962
3. Cultivated, Summer 1962
4. Fertilized, Spring 1963
5. Fertilized, Spring 1967
6. Pruned lowest whorl December, 1967
7. Fertilized (Ammonium nitrate) 3/5/68
8. Sprayed between rows (2 lbs simazine + 2 lbs atrazine/A)
4/2/68
9. Pruned lowest whorl 10/27/68

AC-10

Source Means

6-25-80

| Seed Source | Height (meter x 10) | DBH (centimeters) | Cone Production (0=none to 3=heavy) | d ² H | d ² H, % of \bar{x} | Rank | d ² H % of 4 \bar{x} 's | d ² H % of other \bar{x} 's |
|-------------|----------------------|-------------------|-------------------------------------|--|----------------------------------|------|--------------------------------------|--|
| 278 | 100(41) ^a | 21.4(41) | 1.17(41) | 4580 | 147 | 1 | 145 | 144 |
| 281 | 99(4) | 17.2(4) | 0.25(4) | omit 2929 | 94 | 4 | | |
| 282 | 77(16) | 12.8(16) | 0.19(16) | omit 28% of 278 1262 | 41 | 5 | 40 | 40 |
| 297 | 101(18) | 19.1(18) | 0.78(18) | omit 50% of 278 3685 | 119 | 2 | 117 | 116 |
| 292 | 94(22) | 18.1(22) | 0.36(22) | omit 67% of 278 3080 omit 100% of 278 (except \bar{x} 126) 3176 3152 | 99 | 3 | 98 | |
| | | | | \bar{x} 3107 ± 1219 = (1219 to 4326) | | | | |

a. Number in parenthesis indicates number of trees averaged for source mean

HEIGHT 1967 (FT x 10)

Col. 8

9/18/67

| EXP | TREAT | N | MEAN | ST.DEV. | ST.ERR. |
|-------|-------|------|----------------|----------------|----------------|
| RUN 1 | 278 | 42. | 0.38666666E 02 | 0.93199672E 01 | 0.14381021E 01 |
| RUN 1 | 282 | 27. | 0.32333333E 02 | 0.11221545E 02 | 0.21595873E 01 |
| RUN 1 | 287 | 19. | 0.36789473E 02 | 0.11123443E 02 | 0.25518929E 01 |
| RUN 1 | 292 | 25. | 0.32960000E 02 | 0.99099277E 01 | 0.19819855E 01 |
| RUN 1 | TOTAL | 113. | 0.35575221E 02 | 0.10235507E 02 | 0.0000 |

ANALYSIS OF VARIANCE

| EXP | SOURCE | DF | MEAN SQUARE | F |
|-------|--------|------|----------------|---------|
| RUN 1 | TOTAL | 112. | 0.10985366E 03 | 1 |
| RUN 1 | TREAT | 3. | 0.29471976E 03 | 2.813 * |
| RUN 1 | ERROR | 109. | 0.10476560E 03 | 1 |

Excludes source #281 (2 trees)

13113

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MATURE NEEDLE COLOR

9/22/68

Col. 9

574.0

1 = YELLOW 10 = DARK BLUE GREEN

| EXP | TREAT | N | MEAN | ST.DEV. | ST.ERR. |
|-------|-------|-----|----------------|----------------|----------------|
| RUN 2 | 278 | 42. | 0.57619047E 01 | 0.11001003E 01 | 0.16974916E 00 |
| RUN 2 | 282 | 10. | 0.52000000E 01 | 0.10327955E 01 | 0.32659863E 00 |
| RUN 2 | 287 | 19. | 0.58421052E 01 | 0.89834154E 00 | 0.20609368E 00 |
| RUN 2 | 292 | 22. | 0.54545454E 01 | 0.10568269E 01 | 0.22531625E 00 |
| RUN 2 | TOTAL | 93. | 0.56451612E 01 | 0.10450520E 01 | 0.0000 |

ANALYSIS OF VARIANCE

| EXP | SOURCE | DF | MEAN SQUARE | F |
|-------|--------|-----|----------------|--------------|
| RUN 2 | TOTAL | 92. | 0.11009817E 01 | 1 |
| RUN 2 | TREAT | 3. | 0.13634700E 01 | 1.248 n.s. 1 |
| RUN 2 | ERROR | 89. | 0.10921338E 01 | 1 |

Excludes Source #281 (3 trees)

Excludes trees with "0" rating in Column 9;
these had severe air pollution effects on foliage color

13113

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CURRENT YEAR'S NEEDLE COLOR

7/22/68

1 = yellow, ~~1 = dark blue-gr~~

| EXP | TREAT | N | MEAN | ST.DEV. | ST.ERR. |
|-------|-------|------|----------------|----------------|----------------|
| RUN 1 | 278 | 42. | 0.46428571E 01 | 0.53289036E 00 | 0.82226767E-01 |
| RUN 1 | 282 | 27. | 0.43333333E 01 | 0.67936622E 00 | 0.13074409E 00 |
| RUN 1 | 287 | 19. | 0.46315789E 01 | 0.49559464E 00 | 0.11369720E 00 |
| RUN 1 | 292 | 25. | 0.41600000E 01 | 0.55377492E 00 | 0.11075498E 00 |
| RUN 1 | TOTAL | 113. | 0.44601769E 01 | 0.57007895E 00 | 0.0000 |

ANALYSIS OF VARIANCE

| EXP | SOURCE | DF | MEAN SQUARE | F |
|-------|--------|------|----------------|------------|
| RUN 1 | TOTAL | 112. | 0.35777497E 00 | 2 |
| RUN 1 | TREAT | 3. | 0.15489616E 01 | 4.766 ** 2 |
| RUN 1 | ERROR | 109. | 0.32499001E 00 | 2 |

Excludes source # 281 (3 trees)

13113

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574.0

AIR POLLUTION INJURY 7/22/68

1 = severe
4 = healthy Col. 11

| EXP | TREAT | N | MEAN | ST.DEV. | ST.ERR. |
|-------|-------|------|----------------|----------------|-----------------------|
| RUN 1 | 278 | 42. | 0.38333333E 01 | 0.37719546E 00 | 0.58202523E-01 0.0000 |
| RUN 1 | 282 | 27. | 0.25185185E 01 | 0.93522397E 00 | 0.17998393E 00 0.0000 |
| RUN 1 | 287 | 19. | 0.39473684E 01 | 0.22941572E 00 | 0.52631577E-01 0.0000 |
| RUN 1 | 292 | 25. | 0.35200000E 01 | 0.71414283E 00 | 0.14282856E 00 0.0000 |
| RUN 1 | TOTAL | 113. | 0.34690265E 01 | 0.61897697E 00 | 0.0000 |

ANALYSIS OF VARIANCE

| EXP | SOURCE | DF | MEAN SQUARE | F |
|-------|--------|------|----------------|-------------|
| RUN 1 | TOTAL | 112. | 0.67983565E 00 | |
| RUN 1 | TREAT | 3. | 0.11460050E 02 | 29.911 ** 3 |
| RUN 1 | ERROR | 109. | 0.38313249E 00 | 3 |

Excludes source # 281 (3 trees)

13113

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574.0
BRANCH ANGLE, 3RD WHORL 7/23/68

Col. 12

| EXP | TREAT | N | MEAN | ST.DEV. | ST.ERR. |
|-------|-------|------|----------------|----------------|----------------|
| RUN 1 | 278 | 42. | 0.61404761E 02 | 0.52408317E 01 | 0.80867789E 00 |
| RUN 1 | 282 | 27. | 0.57074074E 02 | 0.17691644E 02 | 0.34047586E 01 |
| RUN 1 | 287 | 19. | 0.62315789E 02 | 0.71806268E 01 | 0.16473487E 01 |
| RUN 1 | 292 | 25. | 0.59520000E 02 | 0.13376347E 02 | 0.26752694E 01 |
| RUN 1 | TOTAL | 113. | 0.60106194E 02 | 0.11528312E 02 | 0.0000 |

ANALYSIS OF VARIANCE

| EXP | SOURCE | DF | MEAN SQUARE | F |
|-------|--------|------|----------------|--------------|
| RUN 1 | TOTAL | 112. | 0.13309576E 03 | 4 |
| RUN 1 | TREAT | 3. | 0.14013647E 03 | 1.054 n.s. 4 |
| RUN 1 | ERROR | 109. | 0.13290198E 03 | 4 |

Excludes Source # 281 (3 trees)

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NO. OF BRANCHES, 3RD WHORL 7/23/68 Col. 13

574.0

| EXP | TREAT | N | MEAN | ST.DEV. | ST.ERR. |
|-------|-------|------|----------------|----------------|----------------|
| RUN 1 | 278 | 42. | 0.58809523E 01 | 0.29894316E 01 | 0.46127931E 00 |
| RUN 1 | 282 | 27. | 0.45185185E 01 | 0.23430809E 01 | 0.45092614E 00 |
| RUN 1 | 287 | 19. | 0.56315789E 01 | 0.20058394E 01 | 0.46017112E 00 |
| RUN 1 | 292 | 25. | 0.43200000E 01 | 0.24276188E 01 | 0.48552377E 00 |
| RUN 1 | TOTAL | 113. | 0.51681415E 01 | 0.25754781E 01 | 0.0000 |

ANALYSIS OF VARIANCE

| EXP | SOURCE | DF | MEAN SQUARE | F |
|-------|--------|------|----------------|---------|
| RUN 1 | TOTAL | 112. | 0.69446902E 01 | 5 |
| RUN 1 | TREAT | 3. | 0.18266250E 02 | 2.753 * |
| RUN 1 | ERROR | 109. | 0.66330876E 01 | 5 |

Excludes source # 281 (3 trees)

13113

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BRANCH LENGTH (LONGEST BRANCH, 3RD WHORL) 7/23/68 Col. 14

574.0

| EXP | TREAT | N | MEAN | ST.DEV. | ST.ERR. |
|-------|-------|------|----------------|----------------|----------------|
| RUN 1 | 278 | 42. | 0.51785714E 02 | 0.16088983E 02 | 0.24825841E 01 |
| RUN 1 | 282 | 27. | 0.37888888E 02 | 0.19904258E 02 | 0.38305762E 01 |
| RUN 1 | 287 | 19. | 0.48789473E 02 | 0.15679352E 02 | 0.35970902E 01 |
| RUN 1 | 292 | 25. | 0.46320000E 02 | 0.19078172E 02 | 0.38156345E 01 |
| RUN 1 | TOTAL | 113. | 0.46752212E 02 | 0.17680740E 02 | 0.0000 |

ANALYSIS OF VARIANCE

| EXP | SOURCE | DF | MEAN SQUARE | F |
|-------|--------|------|----------------|---------|
| RUN 1 | TOTAL | 112. | 0.33342019E 03 | 6 |
| RUN 1 | TREAT | 3. | 0.10895751E 04 | 3.485 * |
| RUN 1 | ERROR | 109. | 0.31260858E 03 | 6 |

Excludes Source #281 (3 trees)

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HEIGHT 1968 (FT x 10)

1/21/69

574.0

Col. 15

| EXP | TREAT | N | MEAN | ST.DEV. | ST.ERR. | |
|-------|-------|------|----------------|----------------|----------------|-------|
| RUN 1 | 278 | 42. | 0.46023809E 02 | 0.11351346E 02 | 0.17515508E 01 | 0.000 |
| RUN 1 | 282 | 27. | 0.37370370E 02 | 0.12785653E 02 | 0.24606001E 01 | 0.000 |
| RUN 1 | 287 | 19. | 0.44842105E 02 | 0.12798711E 02 | 0.29362258E 01 | 0.000 |
| RUN 1 | 292 | 25. | 0.40560000E 02 | 0.12470231E 02 | 0.24940462E 01 | 0.000 |
| RUN 1 | TOTAL | 113. | 0.42548672E 02 | 0.12196389E 02 | | 0.000 |

ANALYSIS OF VARIANCE

| EXP | SOURCE | DF | MEAN SQUARE | F |
|-------|--------|------|----------------|--------|
| RUN 1 | TOTAL | 112. | 0.15753555E 03 | 7 |
| RUN 1 | TREAT | 3. | 0.47667439E 03 | 3.204* |
| RUN 1 | ERROR | 109. | 0.14875191E 03 | 7 |

Excludes Source #281 (3 trees)

13113

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OHIO AGRICULTURAL EXPERIMENT STATION

WOOSTER, OHIO

White Pine - Ohio Source Test
Plantation AC-10

Planted: 4/20/62, 4/23/62
Replacements: 3/29/63
Spacing: 10' x 10'
Design: Complete randomization
Location: Apple Creek State Hospital,
Apple Creek, Ohio

female flowers
(No flowers present) N
6/15/67

| | C | | | | | 4 | | | 8 | |
|----|---|---|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| R | X | X | X | X | | X | X | | X | X |
| | X | X | | X | | X | X | X | X | X |
| | | X | 278 | 282 | 292 | | | 282 | 278 | 278 |
| | X | X | 278 | 292 | 287 | 292 | | 278 | 292 | 278 |
| 20 | X | X | 278 | 278 | 278 | 292 | 287 | 292 | 278 | 292 |
| | X | | | 287 | 282 | | 278 | | X | X |
| | X | | 292 | 282 | 282 | 281 | 292 | 278 | | 278 |
| | X | X | 282 | 278 | 287 | 287 | | 282 | 292 | 281 |
| 24 | X | | 282 | | 287 | 278 | 292 | | 278 | 282 |
| | X | | | 282 | 278 | 292 | 287 | | 282 | 287 |
| | | X | 278 | 278 | 292 | | 282 | 278 | | 292 |
| | X | | 292 | 278 | 278 | | 278 | 292 | 287 | 278 |
| 28 | | | 278 | 282 | | 282 | | 278 | 292 | 282 |
| | X | | 282 | | 278 | 278 | | 278 | 292 | 282 |
| | X | X | | 278 | 292 | | | 287 | 287 | 287 |
| | X | | 287 | 278 | | 287 | 287 | 282 | 278 | X |
| 32 | X | X | | | | 278 | 278 | | 282 | X |
| | X | X | 278 | 287 | | 292 | | | 282 | X |
| | X | | | 282 | 281 | | | 278 | 292 | X |
| | X | X | 282 | 278 | | 287 | 282 | | 292 | X |
| 36 | X | X | 282 | 287 | 278 | 282 | 292 | 278 | 287 | 281 |
| | X | X | 292 | | 287 | 282 | 292 | 278 | | X |
| | X | | | 292 | | 278 | | 278 | 278 | X |
| | X | | 282 | 282 | | 292 | | 287 | X | X |
| | X | X | X | X | X | X | X | X | X | X |
| | X | X | X | X | X | X | X | X | X | X |

Source information:

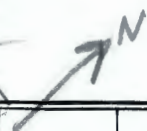
| Acc. No. | Location |
|----------|---|
| 278 | Ashland Co., O., Mohican State Forest |
| 281 | Ashland Co., O., Mohican State Forest |
| 282 | Licking Co., O., Fallsbury Twp., Wakatomika Creek (5-tree mixture, actually 282-286) |
| 287 | Columbiana Co., O., St. Clair Twp., Vedrey Horse Farm (T 6N, S3) |
| 292 | Mountain City, Johnson, Tennessee |
| X | Border and filler stock |

Spacing: Randomized planting

White Pine - Ohio Sources
 plantation AC-10

checked

Location: Apple Creek Lake Hospital



| P/C | | | | | | 4 | | | | 8 | |
|-----|---|---|-----|-----|-----|-----|-----|-----|-----|-----|---|
| | X | X | X | X | | X | X | | X | X | X |
| | X | X | | X | | X | X | X | X | X | X |
| | | X | 278 | 282 | 292 | | | 282 | 282 | 278 | X |
| | X | X | 278 | | 292 | 287 | 292 | | 278 | 292 | X |
| 20 | X | X | 278 | 278 | 278 | 292 | 287 | | 292 | | X |
| | X | | | 287 | 282 | | 278 | | | X | X |
| | X | | 292 | 282 | 282 | 281 | 292 | 278 | | 278 | X |
| | X | X | 282 | 278 | 287 | 287 | | 282 | 292 | 281 | X |
| 24 | X | | 282 | | 287 | 278 | 292 | | 278 | 282 | X |
| | X | | | 282 | 278 | 292 | 287 | | 282 | 287 | X |
| | | X | 278 | 278 | 292 | | 282 | 278 | | 292 | X |
| | X | | 292 | 278 | 278 | | 278 | 292 | 287 | 278 | X |
| 28 | | | 278 | 282 | | 282 | | 278 | 292 | 282 | X |
| | X | | 282 | | 278 | 278 | | 278 | 292 | 292 | X |
| | X | X | | | 278 | 292 | | | 287 | 287 | X |
| | X | | 287 | 278 | | 287 | 287 | 292 | 278 | X | X |
| 32 | X | X | | | | 278 | 278 | | 282 | X | X |
| | X | X | 278 | 287 | | 292 | | | 282 | | X |
| | X | | | 282 | 281 | | | 278 | 292 | X | X |
| | X | X | 282 | 278 | | 287 | 282 | | 292 | X | X |
| 36 | X | X | | 287 | 278 | 282 | 292 | 278 | 287 | 281 | X |
| | X | X | 292 | | 287 | 282 | 292 | 278 | | X | X |
| | X | | | | 292 | | 278 | | 278 | 278 | X |
| | X | | 282 | 282 | | | 292 | | 287 | X | X |
| | X | X | X | X | X | X | X | X | X | X | X |
| | X | X | X | X | X | X | X | X | X | X | X |

Source information:

Surv., Br length, Height

AC-10 End of 1964 growing season

10

| SURV | 11610. | 12010. | | | | |
|-------|------------|--------|------|---------------|---------------|--|
| TREAT | SUM | | N | MEAN | STD DEV | |
| 1. | .44000000E | 02 | 57. | .77192982E 00 | .42331785E 00 | |
| 2. | .27000000E | 02 | 41. | .65853659E 00 | .48009147E 00 | |
| 3. | .22000000E | 02 | 33. | .66666666E 00 | .47871357E 00 | |
| 4. | .25000000E | 02 | 36. | .69444444E 00 | .46717659E 00 | |
| TOTAL | .11800000E | 03 | 167. | .70658682E 00 | | |

ANALYSIS OF VARIANCE

| SOURCE | SSQ | DF | MS | F |
|--------|---------------|------|---------------|---------------|
| TOTAL | .34622760E 02 | 166. | | |
| TREAT | .39593100E 00 | 3. | .13197700E 00 | .62852015E 00 |
| ERROR | .34226829E 02 | 163. | .20998054E 00 | |

| LENGT | 11411. | 12010. | | | | |
|-------|------------|--------|------|---------------|---------------|--|
| TREAT | SUM | | N | MEAN | STD DEV | |
| 1. | .10800000E | 02 | 44. | .24545455E 00 | .15619687E 00 | |
| 2. | .67000000E | 01 | 27. | .24814814E 00 | .12821369E 00 | |
| 3. | .51000000E | 01 | 20. | .25500000E 00 | .14680814E 00 | |
| 4. | .61000000E | 01 | 25. | .24400000E 00 | .17578395E 00 | |
| TOTAL | .28700000E | 02 | 116. | .24741379E 00 | | |

ANALYSIS OF VARIANCE

| SOURCE | SSQ | DF | MS | F |
|--------|---------------|------|---------------|---------------|
| TOTAL | .26292242E 01 | 115. | | |
| TREAT | .16258000E-02 | 3. | .54193333E-03 | .23099623E-01 |
| ERROR | .26275984E 01 | 112. | .23460700E-01 | |

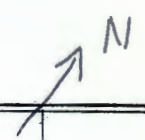
| HT. | 11011. | 12010. | | | | |
|-------|------------|--------|------|---------------|---------------|--|
| TREAT | SUM | | N | MEAN | STD DEV | |
| 1. | .58700000E | 02 | 44. | .13340909E 01 | .45797491E 00 | |
| 2. | .39900000E | 02 | 27. | .14777777E 01 | .47824467E 00 | |
| 3. | .25000000E | 02 | 20. | .12500000E 01 | .43346826E 00 | |
| 4. | .29600000E | 02 | 25. | .11840000E 01 | .44317040E 00 | |
| TOTAL | .15320000E | 03 | 116. | .13206896E 01 | | |

ANALYSIS OF VARIANCE

| SOURCE | SSQ | DF | MS | F |
|--------|---------------|------|---------------|----------------|
| TOTAL | .24490350E 02 | 115. | | |
| TREAT | .12412200E 01 | 3. | .41374000E 00 | .19931447E -01 |
| ERROR | .23249130E 02 | 112. | .20758151E 00 | |

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Revised AC-10



| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|-----|
| | X | X | X | X | (X) | X | X | (X) | X | X | X |
| | X | X | (X) | X | (X) | X | X | X | X | X | X |
| 17 | (X) | X | 1 | 3 | 5 | 4 | (2) | 3 | 3 | 1 | X |
| | X | X | 1 | 4 | 5 | 4 | 5 | 4 | 1 | 5 | X |
| | X | X | 1 | 1 | 1 | 5 | 4 | (2) | 5 | X | X |
| 20 | X | (X) | (3) | 4 | 3 | (3) | 1 | (3) | (4) | X | X |
| | X | (X) | 5 | 3 | 3 | 2 | 5 | 1 | (3) | 1 | X |
| | X | X | 3 | 1 | 4 | 4 | (5) | 3 | 5 | 2 | X |
| 23 | X | (X) | 3 | 5 | 4 | 1 | 5 | (1) | 1 | 3 | X |
| | X | (X) | (3) | 3 | 1 | 5 | 4 | (2) | 3 | 4 | X |
| | (X) | X | 1 | 1 | 5 | (4) | 3 | 1 | (2) | 5 | X |
| 26 | X | (X) | 5 | 1 | 1 | (4) | 1 | 5 | 4 | 1 | X |
| | (X) | (X) | 1 | 3 | (2) | 3 | (1) | 1 | 5 | 3 | X |
| | X | (X) | 3 | 1 | 1 | 1 | (5) | 3 | 1 | 5 | X |
| 29 | X | X | (5) | (3) | 1 | 5 | (1) | (1) | 4 | 4 | X |
| | X | (X) | 4 | 1 | 3 | 4 | 4 | 3 | 1 | X | X |
| | X | X | 3 | (5) | (3) | 1 | 1 | (3) | 3 | X | X |
| 32 | X | X | 1 | 4 | (3) | 5 | (2) | (5) | 3 | 3 | X |
| | X | (X) | (4) | 3 | 2 | (5) | (4) | 1 | 5 | X | X |
| | X | X | 3 | 1 | (5) | 4 | 3 | (3) | 5 | X | X |
| 35 | X | X | (4) | 4 | 1 | 3 | 5 | 1 | 4 | 2 | X |
| | X | X | 5 | (5) | 4 | 3 | 5 | 1 | (1) | X | X |
| | X | (X) | (1) | (4) | 5 | (4) | 1 | (3) | 1 | 1 | X |
| 38 | X | (X) | 3 | 3 | (4) | (5) | 5 | (3) | 4 | X | X |
| | X | X | X | X | X | X | X | X | X | X | X |
| | X | X | X | X | X | X | X | X | X | X | (X) |

0 = Dead 10/30/63
 = replanted 3/29/63

AC-10

When we took the survival count on 11/5/62, we had the map turned wrong. We didn't discover this until after we replanted on 4/16/63. North was wrong on the map, therefore those trees that were dead were not replanted with the same tree. I ~~to~~ make up a revised map showing the exact location of each tree. It is a little different from the original map.

Chuck B

Forest Genetics

Plantation No. AC-10

Project No. 286

Date 11/5/62

South
Experimental Plantation Measurements

| R-C | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | R-C | 10 | 11 | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|------|----|----|--|--|--|--|--|--|
| 3301 ✓ | 0 | + | + | 0 | + | + | + | 0 | + | 3450 | + | + | | | | | | |
| 3302 ✓ | 0 | 0 | + | + | 0 | 0 | 0 | 0 | 0 | 3449 | 0 | + | | | | | | |
| 3303 ✓ | 0 | 0 | + | + | 0 | 0 | 0 | 0 | + | 3448 | + | + | | | | | | |
| 3304 ✓ | + | + | + | 0 | + | 0 | 0 | 0 | + | 3447 | 0 | 0 | | | | | | |
| 3305 ✓ | 0 | 0 | 0 | 0 | + | + | 0 | 0 | 0 | 3446 | + | 0 | | | | | | |
| 3306 ✓ | 0 | + | + | + | 0 | 0 | 0 | + | 0 | 3445 | 0 | + | | | | | | |
| 3307 ✓ | 0 | 0 | + | + | + | + | 0 | 0 | 0 | 3444 | 0 | 0 | | | | | | |
| 3308 ✓ | 0 | 0 | 0 | + | 0 | 0 | + | 0 | 0 | 3443 | 0 | + | | | | | | |
| 3309 ✓ | + | + | 0 | 0 | 0 | + | 0 | + | 0 | 3442 | 0 | + | | | | | | |
| 3310 ✓ | + | 0 | 0 | 0 | 0 | + | 0 | 0 | + | 3441 | + | 0 | | | | | | |
| 3311 ✓ | + | 0 | + | 0 | + | + | 0 | + | 0 | 3440 | 0 | + | | | | | | |
| 3312 ✓ | + | + | + | + | 0 | + | 0 | 0 | + | 3439 | 0 | 0 | | | | | | |
| 3313 ✓ | + | + | 0 | + | 0 | 0 | 0 | 0 | + | 3438 | 0 | + | | | | | | |
| 3314 ✓ | + | + | + | + | 0 | 0 | 0 | 0 | + | 3437 | 0 | 0 | | | | | | |
| 3315 ✓ | + | + | + | + | + | 0 | 0 | 0 | + | 3436 | 0 | 0 | | | | | | |
| 3316 ✓ | + | + | 0 | 0 | + | 0 | + | 0 | 0 | 3435 | + | + | | | | | | |
| 3317 ✓ | + | + | + | 0 | + | + | + | 0 | 0 | 3434 | 0 | + | | | | | | |
| 3318 ✓ | + | + | 0 | 0 | + | + | + | + | + | 3433 | 0 | 0 | | | | | | |
| 3319 ✓ | + | + | + | 0 | + | + | + | 0 | 0 | 3432 | 0 | + | | | | | | |
| 3320 ✓ | + | + | 0 | + | + | + | + | 0 | + | 3431 | + | 0 | | | | | | |
| 3321 ✓ | + | 0 | 0 | 0 | + | 0 | 0 | + | + | 3430 | + | 0 | | | | | | |
| 3322 ✓ | + | 0 | + | 0 | + | + | + | + | 0 | 3429 | + | + | | | | | | |
| 3323 ✓ | + | + | 0 | 0 | + | + | + | + | 0 | 3428 | 0 | + | | | | | | |
| 3324 ✓ | + | + | 0 | + | 0 | + | + | + | + | 3427 | + | 0 | | | | | | |
| 3325 ✓ | + | 0 | + | 0 | + | + | + | + | 0 | 3426 | + | + | | | | | | |
| 3326 ✓ | + | 0 | + | 0 | 0 | 0 | + | + | 0 | 3425 | + | + | | | | | | |
| 3327 | | | | | | | | | | 3424 | | | | | | | | |
| 3328 | | | | | | | | | | 3423 | | | | | | | | |
| 3329 | | | | | | | | | | 3422 | | | | | | | | |
| 3330 | | | | | | | | | | 3421 | | | | | | | | |
| 3331 | | | | | | | | | | 3420 | | | | | | | | |
| 3332 | | | | | | | | | | 3419 | | | | | | | | |
| 3333 | | | | | | | | | | 3418 | | | | | | | | |
| 3334 | | | | | | | | | | 3417 | | | | | | | | |
| 3335 | | | | | | | | | | 3416 | | | | | | | | |
| 3336 | | | | | | | | | | 3415 | | | | | | | | |
| 3337 | | | | | | | | | | 3414 | | | | | | | | |
| 3338 | | | | | | | | | | 3413 | | | | | | | | |
| 3339 | | | | | | | | | | 3412 | | | | | | | | |
| 3340 | | | | | | | | | | 3411 | | | | | | | | |
| 3341 | | | | | | | | | | 3410 | | | | | | | | |
| 3342 | | | | | | | | | | 3409 | | | | | | | | |
| 3343 | | | | | | | | | | 3408 | | | | | | | | |
| 3344 | | | | | | | | | | 3407 | | | | | | | | |
| 3345 | | | | | | | | | | 3406 | | | | | | | | |
| 3346 | | | | | | | | | | 3405 | | | | | | | | |
| 3347 | | | | | | | | | | 3404 | | | | | | | | |
| 3348 | | | | | | | | | | 3403 | | | | | | | | |
| 3349 | | | | | | | | | | 3402 | | | | | | | | |
| 3350 | | | | | | | | | | 3401 | | | | | | | | |

+ = alive
0 = dead

North

West

150 = 150



WHITE PINE
OHIO SOURCES (6 TENN.)
PLANTED 4/20/62 and 4/23/62

AC-10



| | | 1 | 2 | 4 | 3 | 3 | 7 | 4 | 5 | | | |
|----------------|----|-------------------|-------------------|-------|-------|-------|-------|-------|-------|---|-------------------|--|
| | | (4) | (2) | (6) | (8) | (4) | (2) | (8) | (5) | | | |
| 1 = 278 | 1 | 5 | 4 | 7 | 6 | 6 | 2 | 5 | 5 | | | |
| 2 = 281 (16) | | | | | | | | | | | | |
| 3 = 282-6 | | | | | | | | | | | | |
| 4 = 287 (1) | | | | | | | | | | | | |
| 5 = 292 (2) 10 | | | | | | | | | | | | |
| | 11 | | | | | | | | | | | |
| | 12 | | | | | | | | | | | |
| | 13 | | | | | | | | | | | |
| | 14 | | | | | | | | | | | |
| | 15 | | double border row | | | | | | X | X | | |
| | 16 | | | | | | | X | X | | | |
| | 17 | 1 | 3 | 5 | 4 | 2 | 3 | 5 | 1 | | | |
| | 18 | 2 | 4 | 5 | 4 | 5 | 4 | 1 | 5 | | | |
| | 19 | 4 | 1 | 1 | 5 | 4 | 2 | 5 | 3 | | | |
| | 20 | 3 | 4 | 5 | 3 | 1 | 3 | 4 | 1 | | | |
| | 21 | 5 | 3 | 3 | 2 | 5 | 1 | 3 | 1 | | | |
| | 22 | 5 | 1 | 4 | 4 | 5 | 3 | 5 | 2 | | | |
| | 23 | 3 | 5 | 4 | 1 | 5 | 1 | 1 | 3 | | Single border row | |
| | 24 | 3 | 4 | 1 | 5 | 4 | 2 | 3 | 4 | | | |
| | 25 | 1 | 3 | 5 | 4 | 3 | 4 | 2 | 5 | | | |
| | 26 | 5 | 5 | 4 | 4 | 1 | 5 | 4 | 1 | | border row | |
| | 27 | 1 | 3 | 2 | 1 | 1 | 1 | 5 | 3 | | | |
| | 28 | 3 | 2 | 4 | 3 | 5 | 3 | 1 | 5 | | | |
| | 29 | 5 | 3 | 1 | 5 | 1 | 1 | 4 | 4 | | | |
| | 30 | 4 | 1 | 3 | 4 | 4 | 1 | 1 | 5 | | border row | |
| | 31 | 3 | 5 | 3 | 1 | 3 | 3 | 4 | 2 | | | |
| | 32 | 1 | 4 | 3 | 5 | 2 | 5 | 3 | 3 | | | |
| | 33 | 4 | 3 | 2 | 5 | 4 | 1 | 3 | 1 | | | |
| | 34 | 5 | 1 | 5 | 4 | 3 | 3 | 5 | 5 | | | |
| | 35 | 4 | 4 | 5 | 2 | 3 | 1 | 4 | 2 | | | |
| | 36 | 5 | 5 | 4 | 3 | 5 | 2 | 1 | 3 | | | |
| | 37 | 1 | 4 | 5 | 4 | 1 | 3 | 1 | 1 | | | |
| | 38 | 3 | 2 | 4 | 5 | 1 | 3 | 4 | 4 | | | |
| | | double border row | | | | | | | | | | |
| | | 5 (6) | 4 (6) | 3 (7) | 3 (3) | 6 (4) | 7 (5) | 6 (4) | 6 (5) | | | |

stock

Ohio White pine seed sources as of August 12, 1958

| <u>Recorded Number</u> | | <u>Number of Seedlings</u> | | |
|------------------------|------------------------|----------------------------|----|----|
| ✓ | 280 Ashland Co. | 1 | | |
| | 288 Adams | 179 | | |
| | 291 Adams | 777 | | |
| ✓ | 282 to 286 Licking Co. | 216 | 40 | 40 |
| | 289 Adams | 578 | | |
| ✓ | 287 Columbiana Co. | 197 | 40 | |
| ✓ | 278 Ashland Co. | 247 | 40 | 40 |
| ✓ | 281 Ashland Co. | 46 | 40 | 16 |
| ✓ | 292 Tennessee | 656 | 40 | 40 |
| Total - - - - - | | 2,910 | | |

Ashland Co. 294
 Licking Co. 216
 Columbiana Co. 197



