

Plant Breeding Programs in the NCSU - Department of Forestry and Environmental Resources

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|---------------|--|----------------------------------|---------------------------------------|------------------------------------|
| Group: | <u>Tree Improvement Program</u> | <u>CAMCORE (conifers)</u> | <u>Christmas Tree Genetics</u> | <u>Forest Biotechnology</u> |
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Part I. Breeding efforts by crop

| <u>Crop group</u> | <u>PYs</u> | | <u>Crop group</u> | <u>PYs</u> | | <u>Crop group</u> | <u>PYs</u> | | <u>Crop group</u> | <u>PYs</u> |
|-------------------|------------|--|-------------------|------------|--|-------------------|------------|--|-------------------|------------|
| Loblolly pine | 2.0 | | Pines (tropical) | 0.8 | | Fraser fir | 0.8 | | Pine | 0.6 |
| | | | Eucalyptus | 0.2 | | Virginia pine | 0.1 | | Eucalyptus | 0.3 |
| | | | Gmelina | 0.2 | | White pine | 0.05 | | Populus | 0.1 |
| | | | Hemlocks | 0.2 | | Redcedar | 0.05 | | Chestnut | 0.4 |

Part II. Breeding efforts by activity

| <u>Activity</u> | <u>PYs</u> | <u>%</u> | | <u>PYs</u> | <u>%</u> | | <u>PYs</u> | <u>%</u> | | <u>PYs</u> | <u>%</u> |
|------------------------------|------------|-------------|--|-------------|-------------|--|------------|-------------|--|------------|-------------|
| (a) Plant Breeding Research | 1 | 10% | | 0 | 0 | | 0 | 0 | | 0.5 | 25% |
| (b) Germplasm Enhancement | 1 | 10% | | 1.75 | 54% | | 0.1 | 10% | | 0 | 0 |
| (c) Cultivar Development | 2 | 80% | | 1.00 | 31% | | 0.8 | 80% | | 0 | 0 |
| (d) Biotechnology R&D | 0 | 0 | | 0.25 | 7% | | 0.1 | 10% | | 1.5 | 75% |
| (e) Plant Breeding Education | 0 | 0 | | 0.25 | 8% | | 0 | 0 | | 0 | 0 |
| Total | 4.0 | 100% | | 3.25 | 100% | | 1.0 | 100% | | 2.0 | 100% |

Part III. Recent graduates and current graduate student enrollment (except for students in biotech. / molecular genetics)

Graduates from 2000 to 2006 :

| | | |
|--|--------------------------|---------------------------|
| Domestic M.S. Ph.D. = 8 | Domestic Ph.D. = 1 | Domestic MS 4, Ph.D 1 = 5 |
| International M.S. Ph.D = 6 | Int'l M.S. 2, Ph.D 4 = 6 | Int'l MS 0, Ph.D 0 = 0 |
| Students currently studying plant breeding = 6 | Current students = 2 | Current students = 3 |

Part IV. Job placement of recent graduates

Tree Improvement Program: All recent graduates have gone on to domestic or international academic, industry, or government agency careers.

CAMCORE: All of our students are supported by industry and go back to industry after their degrees. (- W. Dvorak)

Forest Biotechnology: Of our 8 most recent graduates (since 2000), three have academic positions, two have positions as researchers at universities (non-academic track), two are in industry, and one went to medical school. (- R. Sederoff)

Part V. Plant breeding courses offered

FOR-725: Forest Genetics; FOR-728: Quantitative Forest Genetics Methods; FOR-610A: Current Topics in Forest Genetics