

## Root Disease Committee Report

Submitted by Ellen Michaels Goheen

The Root Disease Committee met for breakfast on Thursday, September 13, 2001.

Brennan Ferguson gave a short presentation on work he is doing that describes the genet structure of *Armillaria ostoyae* on two mixed conifer landscapes: one in northeastern Oregon and one in northwestern Montana. Objectives of the study were to determine the species of *Armillaria* causing mortality and assess genet size and diversity. Collections were made from live trees symptomatic for root disease and recently killed trees. Somatic incompatibility pairings were used to determine species and genet.

Results: The *Armillaria* collection from Montana consisted of approximately 75 isolates, all *A. ostoyae*. Pairings revealed the presence of 52 genets across the studied landscape; the largest of these was approximately 100 ha in area. Most genets were represented by one to two samples collected from either small groups of trees or individual trees with root disease symptoms.

The *Armillaria* collection from Oregon consists of 112 isolates; 106 *A. ostoyae* and 4 NABS-X. The *A. ostoyae* isolates represented 5 genets, the largest of which is approximately 1135 ha. All four NABS-X isolates came from one genet. No *A. ostoyae* genets overlapped or were found within the boundaries of another genet.

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Blakey Lockman gave a presentation on evaluations of ponderosa pine mortality and symptom expression on the Flathead Indian Reservation in northwestern Montana. Needle loss and lion's tails were observed on overstory ponderosa pine in the late 1980s and early 1990s. A cumulative symptom rating system for trees was used to evaluate individual trees. Annosum root disease was associated with some dieback and symptom expression.

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The bulk of the rest of the meeting was spent discussing the committee's proposal to sponsor a panel at the 2002 WIFDWC on root diseases and fertilization treatments. Brennan Ferguson and John Schwandt agreed to organize a panel specific to that subject and also to organize a panel or discussion section on tree physiology/tree response as relates to nutrient status. Potential subjects/areas to include in these panels might be: 1) a review of the subjects, 2) different fertilizers proposed as root disease treatments, 3) different root diseases, 4) thinning by fertilization interactions, 5) mycorrhizal interactions, and 6) recent information on plant defense mechanisms.

The last 10 minutes of committee time were spent in a quick round robin of projects and studies.