

Summary of Meetings and Contents of Proceedings of the Intermountain Forest Nursery Association: 1960-1989¹

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This historical account of 30 years' progress of the Intermountain Nursery Association is included in these 1989 proceedings, and will serve as a Table of Contents for past proceedings. Each of the proceedings is summarized--indicating the host nursery, location, host nurseryman, dates of the annual meetings, and attendance numbers; interesting meeting highlights are also included. The title of each paper, presented together with the author, is listed. The business meeting decisions are also noted.

A complete set of each of the past meeting proceedings are deposited at the library of the U.S.F.S. Rocky Mountain Forest & Range Experiment Station, Fort Collins, Colorado. If more information on a particular paper with any proceedings is desired, you may contact:

Librarian, USDA Forest Service
Rocky Mountain Forest & Range Exp. Station
240 West Prospect
Fort Collins, CO 80526

ANNOTATED RECORD OF MEETINGS

1st Meeting, known as the organizational meeting, was held at the Big Sioux Conifer Nursery at Watertown, South Dakota on August 20, 1960. Marvin Strachan, host nurseryman, presided. Nine nurserymen and support persons attended the meeting, and all presented input pertaining to the need to form a regional nursery association.

Significant actions taken during the meeting were:

1. ORGANIZATIONAL NAME: Intermountain Nurserymen's Association.
2. MEMBERSHIP: Nurseries within the Great Plains and Rocky Mountain region growing or providing seedling trees for conservation and/or reforestation purposes.
3. OBJECTIVES:
 - (a) Provide a forum for nurserymen and affiliate personnel to meet and exchange technology, ideas, information, and techniques.
 - (b) Exchange equipment and supplies, or information thereof, between states and nurseries, particularly a clearing house of information on surplus and shortages of nursery seedlings.
 - (c) Provide research organizations with specific nursery and seedling needs.
 - (d) Provide forest nursery needs and accomplishments on a regional basis, particularly coordinated grade stock standards and genetic tree improvement.
4. OFFICERS AND MEETING DATES: Annual meeting to rotate around participating nurseries. Host nurseryman to be in charge of the program, arrangements, dates of the meeting, and preparation of the proceedings. No formal officers or membership dues.

A tour of the nursery and facilities was conducted, and the group agreed to meet at the Bessey Nursery in Nebraska in 1961.

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¹This information was prepared for the Intermountain Forest Nursery Association meeting, Bismarck, ND, August 14-18, 1989.

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CHRONOLOGY OF PAST MEETINGS - - - - - INTERMOUNTAIN NURSERY ASSOCIATION

<u>MEETING</u>	<u>HOST NURSERY</u>	<u>LOCATION</u>	<u>NURSERY MANAGER</u>	<u>DATES</u>	<u>ATTENDANCE</u>
1	Big Sioux Conifer	Watertown, SD	Marv Strachan	Aug. 20, 1960	9
2	Bessey	Halsey, NE	Red Haines	Sept. 14-15, 1961	21
3	Monument	Monument, CO	Ed Palant	Sept. 13-14, 1962	20
4	Montana State	Missoula, MT	Don Baldwin	Sept. 11-13, 1963	28
5	Lucky Peak	Boise, ID	Leroy Sprague	Aug. 19-20, 1964	--
6	Mt. Sopris	Carbondale, CO	Sid Hanks	Sept. 14-16, 1965	40
7	Colorado State	Ft. Collins, CO	John Ellis	Aug. 30-31, 1966	28
8	PFRA - Indian Head	Indian Head, SASK.	Sandy Patterson	Aug. 1-4, 1967	66
9	Green Canyon	Salt Lake City, UT	Clyn Bishop	Aug. 6-8, 1968	21
10	Lincoln-Oakes/Towner	Bismarck/Towner, ND	Lee Hinds/ Jerry Liddle	Aug. 5-7, 1969	31
11	Coeur d'Alene	Coeur d'Alene, ID	Bud Mason	Aug. 4-6, 1970	63
12	Oliver	Edmonton, Alberta	D. Hillson	Aug. 3-5, 1971	54
13	Mike Webster/IFA/ Weyerhaeuser	Olympia, WA	H. Anderson/ R. Eide / J. Bryan	Aug. 8-10, 1972	117
14	Big Sioux Conifer	Watertown, SD	Don Townsend	Aug. 7-9, 1973	35
** The North American Containerized Forest Tree Symposium was held in 1974 instead of the annual meeting.					
15	Montana State	Missoula, MT	Willis Heron	Aug. 5-7, 1975	65
16	Green Timbers/Surry	Richmond, B.C.	Bayne Vance	Aug. 9-12, 1976	120
17	Kansas State	Manhattan, KS	Bill Loucks	Aug. 9-11, 1977	65
18	Humboldt	Eureka, CA	Don Perry	Aug. 7-11, 1978	189
19	Mt. Sopris	Carbondale, CO	John Scholtes	Aug. 13-16, 1979	124
20	Lucky Peak	Boise, ID	Dick Thatcher	Aug. 12-14, 1980	116
21	Oliver/Pine Ridge	Edmonton, Alberta	Ralph Huber	Aug. 11-13, 1981	94
22	J. Herbert Stone	Medford, OR	Frank Morby	Aug. 10-12, 1982	183
23	Nevada State	Las Vegas, NV	Pat Murphy	Aug. 8-11, 1983	78
24	Coeur d'Alene	Coeur d'Alene, ID	Darrell Benson	Aug. 14-16, 1984	190
25	Colorado State	Ft. Collins, CO	Marv Strachan	Aug. 13-15, 1985	83
26	Webster/Mima/IFA	Tumwater, WA	J. Bryan/ K. Curtis/ K. O'Hara	Aug. 12-15, 1986	187
27	Oklahoma State	Oklahoma City, OK	Al Myatt	Aug. 10-14, 1987	80
28	Skimikin	Vernon, B.C.	Ralph Huber	Aug. 8-11, 1988	328
29	Lincoln-Oakes/Towner	Bismarck, ND	Greg Morgenson/ Roy LaFramboise	Aug. 14-17, 1989	77
30	D. L. Phipps	Roseburg, OR	Paul Morgan	Aug. 13-17, 1990	--

The 2nd Meeting of the Intermountain Nurserymen's Association was held at the Bessey Nursery, Nebraska National Forest, Halsey, Nebraska on September 14-15, 1961. Twenty-one people participated. M. K. Meines, host nurseryman, presided as Chairman and introduced Milt Andrews, Timber Management staff, USFS, Denver, who welcomed the group.

AGENDA

Panel discussion topics and the leaders were as follows:

E. Palpant - Monument Nursery - Maintenance of Soil Fertility and the Interpretation of Soil Tests
D. Baldwin - Montana State Nursery - Green Manure Crops
M. Strachan - South Dakota Nursery - Commercial Fertilizers
R. Meines - Bessey Nursery - Soil Fumigants and Fumigation
P. Salisbury - Canadian Forestry, Indian Head - Nematodes
W. Bagley - Univ. of Nebraska - Herbicides for Nursery use
S. Hanks - Bessey Nursery - Mineral Spirits
A. Engstrom - Oklahoma Nursery - Other Chemicals for Nursery Weed Control
S. Hanks/H. Gallaher/J. Ellis - Over Winter Storage of Planting Stock
R. Read - USFS, Lincoln, Nebraska - Nursery Stock Standards - Quality Morphological and Physiological, Caliper, Top Root Balance, Shoot, Height, Age Class and Site Demands on Quality of Stock
P. Salisbury - Canadian Forestry, Indian Head - Insects and Disease Problems and their Control

BUSINESS MEETING

Ed Palpant invited the group to meet at the Monument Nursery at Monument, Colorado in 1962. A tour of the Bessey Nursery was conducted by the host nurseryman.

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The 3rd Meeting of the Intermountain Nurserymen's Association was held at the U.S. Forest Service Monument Nursery, Monument, Colorado on September 13-14, 1962. Twenty people were in attendance for the 2-day meeting. Ed Palpant was the host nurseryman and presided as chairman.

AGENDA

The entire program was structured, so a discussion leader introduced a designated topic, and the participants all assisted with their experience, questions, and knowledge. The discussion leaders and topics were as follows:

J. Nishimura - Soil Scientist, USFS - Soil Texture and Structure Management
M. Strachan - South Dakota Nursery - Plant Growth Response to Various Soil Structure, Texture and Fertility Levels at Various Nurseries
M. Andrews - USFS, Denver - Nursery Administrator - General
E. Priegal - USFS, Denver - Seed Handling Techniques

The discussion topics led to a very good round-table discussion and analysis of the related and some unrelated subjects. Host nurseryman Ed Palpant and Mr. Harvey Koller, U.S. Air Force Academy, took the group on a field trip to the nearby Air Force Academy to observe the planting reforestation efforts and to view the academy grounds in general. A tour of the Monument Nursery was also accomplished to view the nursery beds, seed extraction, facilities, and experimental hybrid plantings. A banquet was held in the evening at a local restaurant. Don Baldwin invited the group to meet at the Montana State Nursery in Missoula in September 1963.

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The 4th Meeting of the Intermountain Nurserymen's Association was held at the State Forest Nursery in Missoula, Montana on September 11-13, 1963. Don Baldwin, host nurseryman, presided. Twenty eight people registered for this meeting. Gareth Moon, Montana State Forester, welcomed the group. Moon explained that the Montana Nursery had recently been transferred from Montana State University to the Montana State Forestry Department and he was looking forward to seeing the nursery grow and develop to better serve a stepped-up tree planting program.

A structured program with speakers and prepared papers was not planned by the host nursery. Instead, round-table discussion periods were held.

Office Procedures and Records - William Poulsen, Utah, led the discussion period. Each of the participating nurseries stated how tree order forms were handled, tree orders received, and how trees were distributed or delivered to landowners. Each of the nurserymen also described their nurseries, type and amount of production, and the involvement in nursery "paper work"; such as seed records, seeding schedules, investigation reports, treatment plans, seed catalogs, annual stock inventory reports, stock shipment summaries, stock survival records, financial records, and personnel files.

Free-For-All Discussion - Marvin Strachan, South Dakota, led the discussion period. Participants brought up their individual problems, and the answers were fielded and answered by the participating group. Problems discussed were mainly in regard to cold storage, seed stratification, heel-in beds, and weed control.

Two days were spent in touring and visiting the member nurseries in the area. The Montana State Forest Nursery, Missoula - Don Baldwin, Superintendent. Mountain Home Nursery, DeBorgia - Jack Callen, Owner/operation. Savenac Nursery and Seed Extractory, USFS, Haugan - Bud Mason, Superintendent. The new Forest Service Nursery and Seed Extractory at Coeur d'Alene, Idaho, Jim Augenstein, Superintendent was also visited and still under construction.

The business meeting reviewed the progress of the sub-committee on grading stands - Red Meines, Chrm., Ellis (Colorado) and Baldwin (Montana). The committee's recommendations were adopted, but further work was suggested.

Augenstein, a member of the Western Forest Nursery group, announced their 1964 meeting would be held at Lucky Peak Nursery, Boise, Idaho -Leroy Sprague, nurseryman, suggested a joint meeting of the Intermountain and Western Forest Nurserymen. The group agreed to a joint meeting at Boise in 1964.

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The 5th Meeting was held at the U.S. Forest Service Lucky Peak Nursery, Boise, Idaho on August 19-20, 1964. The number and names of attendees was not available, but a rather large attendance was on hand. The meeting was chaired by F. Leroy Sprague, host nurseryman. This meeting was the regularly scheduled meeting for the Western Forest Nurserymen. The Intermountain Nurserymen were invited to meet jointly with the Western Forest Nurserymen, and several were in attendance.

TECHNICAL AGENDA - Papers by:

L. Hojem - Production of Larger Douglas-fir seedlings by Fall Sowing
L. Mason - Methods and Time of Sowing
F. Deffenbacher - Sowing Dates and Rates and Their Effect on Production of Stock
H. Ward - New Nursery Equipment and Processes
J. Long - Summary of Progress in the Production of Interior Spruce in British Columbia
J. Christner - New and Better Ways of Packing and Shipping Seedlings
J. Betts - Tree Lifting and Packing Methods at the Bend Nursery
R. Bega - Disease Control in Forest Nurseries
J. Revel - Planting Study of 2-0 Douglas-fir Culls
C. Bigelow - Intensive Soil Management vs. Fumigation in the Control of Weeds
R.J. Boyd - Soil Fumigation Studies at the Cour d'Alene and Savenac Nurseries
H. Anderson - An Economic Study of Weed Control with Four Herbicides in a Forest Nursery
D. Baldwin - Mechanical Means of Weed Control in Forest Nurseries
S. Hanks - The Use of Solvents for Nursery Weed Control
M. Meagher - Growth of Spruce J. Dick- Report of Committee on Planting Stock Description
J. Trappe/K. Krueger - Seeding Biographies -- Keys to Rational Nursery Practice
C. J. Eden - Use of X-Ray Technique for Determining Sound Seed
L. Baker - Shading and Irrigating

Separate business meetings of the two nursery associations were held. The Intermountain Nurserymen's Association agreed to meet in 1965 at the Mt. Sopris Tree Nursery, Carbondale, Colorado.

The Western Forest Nursery Council agreed to meet in 1966 at Placerville, California. An organizational charter was presented and accepted; selecting the organization name, membership, objective, meeting dates, officers and duties, and terms of office.

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The 6th Meeting, forty people attended the meeting at the Mt. Sopris, USFS Nursery near Carbondale, Colorado on September 14, 15, 16, 1965. Chairman for the meeting was Sid Hanks, host nurseryman. Kenneth Scholz, Forest Supervisor, White River National Forest, welcomed the group.

TECHNICAL AGENDA - Papers by:

- G. Peterson - Rocky Mt. Forest and Range Experiment Station - Notes on Soil Fumigation in Forest Tree Nurseries
M. K. Meines - Bessey Nursery - Lower Seedbed Densities Can Improve Survival of Pines and Cedars Planted in the Great Plains
R. Read - Rocky Mtn. Forest and Range Experiment Station - Selection of Ponderosa Pine for Plains Planting
J. Ellis - Colorado State Forest Service - Morphological Qualities Contributing to Grade
Marvin Strachan - South Dakota - Physiological Qualities Contributing to Grade
C. Pierce - U.S.F.S. State and Private Forestry - Past Recommendations on Grade by the Grading Standards Subcommittee, Intermountain Nurseryman's Assoc.
S. Hanks - Host Nurseryman - What Constitutes Grade - A Grading Exercise and Panel Discussion

A tour of the Nursery and a Seed Extractory demonstration was held.

BUSINESS MEETING

Since the majority of this meeting centered on grade stock standards, and no conclusive agreement could be attained by the organization on what constitutes grade, it was moved, seconded, and passed that the Subcommittee on Grading Standards be terminated.

Discussion of an annual meeting vs. biennial meeting. The annual meeting was approved.

Meeting locations and dates were selected as follows:

- 1966 - Colorado State Forest Service, Fort Collins, Colorado.
- 1967 - Indian Head, Saskatchewan.
- 1968 - Salt Lake City, Utah.

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The 7th Meeting, twenty eight people attended the meeting in Ft. Collins, Colorado on August 30-31, 1966. Field tours were conducted to the Colorado State Forest Service Nursery, where a potting demonstration and field production fields were inspected. John Ellis, host nurseryman, served as chairman, but since Ellis was preparing to leave the position, he was assisted by the new nursery manager, Marvin Strachan and the field superintendent, Claude Heflin with the tour and arrangements. Tom Borden, State Forester, gave the welcome to Ft. Collins and CSU.

TECHNICAL AGENDA - Papers by:

- L. Hinds - Lincoln Oaks Nursery - Nursery Equipment
A. C. Patterson - Indian Head, Saskatchewan - Nursery Equipment
D. Baldwin - Montana State Forest Service - Fertilization
J. Christner - Nevada State Forest Service - Fertilization
D. Tinus - USDA Horticulture - Physiology of Plants
G. Peterson - Problems of a Researcher in the Nursery
E. Heikes - Extension Weed Specialist - Weeding in the Nursery
R. Ulinger - Geneticist, U.S.D.A. - Plant Genetics
M. K. Meines - Bessey Nursery - Winter Storage of Seedlings
S. Hanks - Mt. Sopris - Winter Storage of Seedlings
D. Baldwin/M. Strachan/C. Bishop/M.K. Meines - Growing Methods Used for Spruce, Blue and Engelmann
J. Kepler - Use of Potted Material in Kansas

BUSINESS MEETING

the session was devoted to the availability of surplus trees and setting the 1967 meeting in August at the Indian Head, Saskatchewan Nursery.

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The 8th Meeting of the Intermountain Nurserymen's Association was held at Indian Head, Saskatchewan, Canada on August 1-4, 1967. Sixty-six people registered for the first meeting held outside of the United States. The meeting was chaired by Sandy Patterson, host nurseryman. William Cram, Superintendent PFRA, introduced M. J. Fitzgerald, Director PFRA, who gave the welcome address. A banquet was held in Indian Head, as well as a barbecue at Lake Katepwa Provincial Park. Tours and demonstrations were conducted on the nursery, as well as a tour of the Outlook PFRA Development Farm, the Gardener Dam, and over 1,000 miles of single-row field shelterbelts in Conquest, Sask. area.

TECHNICAL AGENDA - Papers by:

M. Andrews - A Continuous Flow Seed Extractory
L. Mason - Seed Handling R. Knowles - Seed Viability
L. Carlson - Control of Nursery Diseases
L. Peterson - Control of Injurious Nursery and Shelterbelt Insects
L. Sonmer/D. Benson - Irrigation on the Nursery
J. A. Menzies/R. Tinus - Farm Shelterbelts
R. Ulinger/W. CRAM- Tree Improvement
R. Read/D. Christie/J. Chedzoy - Storage Requirements for Nursery Stock
M. K. Meines - Nursery Programming

BUSINESS MEETING

A letter from Gary Moon, State Forester, Montana was read which urged the Intermountain Nurserymen and the Western Forest Nursery Council to merge into a single nursery association. He pointed out that the Intermountain State Foresters and the Western State Foresters had merged to form the council of Western State Foresters and the nurserymen might want to do likewise.

It was agreed that the 1968 meeting would be in Salt Lake City, Utah, and the 1969 meeting be held in Bismarck, North Dakota.

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The 9th Meeting was held at Salt Lake City, Utah on August 6-8, 1968. Twenty-one people registered. Clyn Bishop, host nurseryman, presided as chairman. 1-1/2 days were spent on technical papers; 1 day on a field trip tour of the Utah State Nursery; and part of 1 day on a business session. Richard Klason, Deputy State Forester, gave the address of welcome and explained how the Utah State Forestry agency operates.

TECHNICAL AGENDA - Papers by:

J. Murphy - Lower Seedbed Densities Can Improve Survival of Conifers
S. Patterson - Conventional Farm Sprinkler System Vs. The Skinner System
B. Ellis - Herbicides for Nursery Use
G. Tyson - Mechanical Weed Control in the Nursery
M. Strachan - Over Winter Storage of Planting Stock
L. Hinds - New and Better Ways of Packing and Shipping Seedlings
L. Sprague - New Equipment and Processes
H. Ward - Maintenance of Soil Fertility
D. Townsend - 2-0 Root Pruned Stock Vs. 2-1 Stock
L. Mason - Shading and Irrigation

BUSINESS MEETING

Bud Mason asked that Coeur d'Alene Nursery be given consideration for the 1970 meeting and explained that the Western Forest Nursery Council would meet there at that time. The group accepted the invitation.

Lee Hinds reminded the group that the meeting in 1969 would be in Bismarck, North Dakota.

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Thirty-one people attended the 10th Annual Meeting in North Dakota on August 5-7, 1969. Lee Hinds, host nurseryman, presided as chairman. The first day of reports and discussion was held at the Theodore Roosevelt National Memorial Park in Medora. The second day was a tour of the Lincoln-Oakes Nursery and SCS Plant Materials Center. The third day consisted of a tour of the North Dakota State Towner Nursery, the Denbigh Dunes Experimental Forest, and the USFS Shelterbelt Laboratory, all near Towner, North Dakota. Of particular interest, in addition to the production processes at Lincoln-Oakes and Towner, was the growth retardants studies at Lincoln-Oakes and the growth increase studies by Dr. R. Tinus at Towner.

TECHNICAL AGENDA

The following nurserymen reported on activities, new developments, production problems, and production shipped-- followed by discussion:

L. Sprague - Boise ID - Lucky Peak Nursery
R. Clark - Milbank, S.D. - Clarkdale Nursery
M. Strachan - Ft. Collins, CO - Colorado State Forest Service
D. Townsend - Watertown, S.D. - Big Sioux Conifer Nursery
H. Ward - Olympia, WA - Mike Webster Forest Nursery
A. C. Patterson - Indian Head, Sask. - PFRA Nursery
C. Bishop - Salt Lake City, UT - Green River Nursery
D. Force - Glenwood Spgs., CO - Mt. Sopris Nursery, USFS.
R. Huber - Winnipeg, Canada - Manitoba Experimental Nursery
W. Heron - Missoula, MT - Montana State Forest Service
J. Chedzoy - Oliver, Alberta - Alberta Provincial Nursery

BUSINESS MEETING

The invitation from J. C. Chedzoy to meet in Alberta in 1971 was accepted. The group will meet in Coeur d'Alene in 1970.

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The 11th Meeting of the Intermountain Nurserymen's Association was held jointly with the Western Forest Nursery Council at Coeur d'Alene, Idaho on August 4-6, 1970. Sixty-three people attended. One day was spent on a field trip tour of the USFS Coeur d'Alene Nursery, and 2 days were devoted to technical presentations. Lee Mason and Steve McDonald served as Co-Chairmen.

TECHNICAL AGENDA - Papers by:

S. Evans - Comments on Changes in Nursery Management in the Northern Region
R. Bingham - Progress in Breeding Blister Rust Resistant Western White Pine
C. Sinclair - Fall Vs. Spring Planting Study
R. Boyd/S. Sinclair - St. Joe National Forest Spring-Fall Planting Study
J. Bryan - Tree Seedling Harvester
R. Shearer - Problems Associated with Western Larch Planting Stock
J. Bryan - Container Planting
E. Hardin - Quick Methods of Determining Viability
R. Boyd - Use of Modern Climatic Data in Nursery and Planting Operations
B. Patee - Freezing of Nursery Stock
R. Ellis - Use of Herbicides
H. Jones - Wilbur Ellis Company
P. Owston - Effect of Storage on Vigor of Douglas-fir Stock
R. Hallman - Mechanized Cone Collection
H. Ward - Soil Fertility
H. Ward - Packaging Large Planting Stock

BUSINESS MEETING

Separate business meetings were held for each of the attending nursery associations.

The Intermountain Nurserymen, chaired by Lee Hinds, North Dakota, spent time and discussion regarding lists of surplus nursery stock. It was recommended that the Division of State and Private Forestry, USFS, to assist and distribute the surplus lists.

It was recommended that the Intermountain Nurserymen meet jointly with the Western Forest Nurserymen in Olympia, Washington in 1972. The 1971 meeting is scheduled to be held at Edmonton, Alberta.

The Western Forest Nurserymen, chaired by Steve McDonald, proposed the consolidation of the two nursery associations, but the plan was tabled and the invitation was extended to meet in 1972 in Olympia.

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The 12th Meeting was held jointly between the Intermountain Nurserymen's Association and the Western Forest Nursery Council in Edmonton, Alberta, Canada on August 3-5, 1971. In spite of airline strikes and schedule interruptions in the United States, 54 persons registered for the second meeting held outside the United States. One day was spent at the Provincial Tree Nursery of the Province of Alberta. An enjoyable picnic lunch was enjoyed, as well as the evening banquet where the honorable Dr. Grant McEwan, Lieutenant Governor, Province of Alberta, spoke to the group and reminded all that the world extends beyond the limits of your own back yard.

TECHNICAL AGENDA - Papers by:

R. C. Hallman - Mechanized Cone Harvesting
A. Radvanyi - Use of R-55 As a Rodent Repellant on Coniferous Seeds
R. W. Tinus - Growing Conifer Seedlings In a Controlled Environment
D. Hillson - The Provincial Tree Nursery; a brief account of its history and function
D. L. Mitchell/ W.C. Kay - Production and Characteristics of Sausage Containers
D. Hocking - Requirements for Successful Seedling Storage
F. W. Deffenbacher - Frost Damage to Nursery Stock, Wind River Nursery
A. C. Patterson - Electronic Seedling Counting
R. Esau - Chemical Weed Control in Tree Nursery Crops
J. W. Edgren - Survival and Growth of Undercut Douglas-fir

BUSINESS MEETING

No official business meeting was called, but the Intermountain Nursery group agreed to meet jointly with the Western Nursery group in Olympia, Washington in 1972.

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The 13th Meeting of the Intermountain Nurserymen's Association met in conjunction with the Western Forest Nursery Council in Olympia, Washington August 8-10, 1972. Hosts for the meeting were the Washington State Department of Natural Resources, the Weyerhaeuser Company, and the Industrial Forestry Association. The proceedings of this meeting were dedicated in honor of Homer S. "Red" Ward, Nurseryman for the Washington State Department of Natural Resources, who passed away in February 1972. The Intermountain Nurserymen will remember "Red" Ward for his attendance at the early meetings of the Intermountain Association and his encouragement, knowledge, and friendship. One hundred and seventeen persons registered for the 3-day meeting. One day was spent in visiting the State operated "Mike" Webster Nursery, the Weyerhaeuser Nursery, and the Industrial Forestry Nursery. An interesting tour of the Olympia brewery was also enjoyed. The welcoming address by Mr. Bert L. Cole, Washington State Commissioner of Public Lands, was followed by an opening address by Mr. D. N. Jeffers, Weyerhaeuser Company, pertaining to some prognostications about the future nursery.

TECHNICAL AGENDA - Papers by:

J. Edgren/C. Bigelow - Sizing Seed Reduces Variability in Sowing Ponderosa Pine
E. Arnold - Effects of Sowing Accuracy on Seedling Size 1-0 and 2-0 Douglas-fir
J. McClellan - Operation and Evaluation of the Stan Hay Drill
P. Owston - Cultural Techniques for Growing Containerized Seedlings
R. H. Hillson - Production of Container Seedlings in Alberta
W. Hite - Controlled Environment Seedling Production
M. Strachan - Production of Container Seedlings in Colorado
R. Holland - Production of Container Seedlings in Washington
E. Van. Eerden - Planting and Production of Container Seedlings in British Columbia
W. Hoenke - Growing and Planting Container Stock in Oregon
H. Friese - Tree Seed Certification
J. Isaacson - Stratification Methods and Seed Testing at Coeur d'Alene Nursery
Y. Tanaka - Study of the Pre-Germination Treatment of Douglas-fir Seed in Nursery Use
J. Wheat - Northwest Seed Orchard Status Report
H. Rodger Danielson - Quick-Tests for Determining Viability of Douglas-fir Seed
L. Carlson - Forest Tree Nursery Disease Control
K. Russell - Nursery Soil Disease Assay
J. Zaerr - Lifting Dates and Storage of Douglas-fir Nursery Stock
D. Ray - Seedling Storage and Packing Containers
C. Chaterton - Soil Amendments for Lucky Peak Nursery Soils
S. Hee - Monitoring Soil Fertility at Weyerhaeuser Company's Forest Nurseries
J. Betts - Soil Monitoring at Wind River Nursery
J. Isaacson - Native Shrub Regeneration
D. Lavender - Growth Regulators and How They Effect the Initiation of Dormancy of Nursery Seedlings
H. Jones - Charcoal Row Banding as an Aid to Weed Control in Newly Seeded Forest Nurseries
C. J. Allison - Freeze-Damage Control at the Weyerhaeuser Washington Nursery
F. Deffenbacher - Frost Damage to Nursery Stock
J. Lott - Evaluation of the New Zealand Root Pruner
R. Gray - Grayco Harvester
J. Storms - J. E. Love Seedling Harvester
R. Homes - Summation and Evaluation 1972 Nurserymen's Meeting

BUSINESS MEETING

The Western Forest Nursery Council and the Intermountain Nurserymen's Association each held separate business meetings. It was agreed that the Intermountain Nurserymen would meet in 1973 at the Big Sioux Conifer Nursery in Watertown, South Dakota in August.

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The 14th Meeting, thirty five people attended the meeting of the Intermountain Nurserymen's Association in Watertown, South Dakota on August 7-9, 1973. Don Townsend, Nursery Manager, presided. Millard Braden, South Dakota State Forester, gave the welcome address. A tour of the Big Sioux Nursery and a catered luncheon at the nursery was enjoyed by all. Tony Dean was a guest speaker at the Wednesday Banquet-"South Dakota of all Places."

TECHNICAL AGENDA - Papers by:

L. Rempel - The Paper Pot System
F. Deffenbacher - Seed Certification in the Northwest
R. Read - Great Plains Tree Improvement
M. Strachan - Green House Production
J. Otta - Seedling Disease Problems
D. Gruber - Chemical Weed Control
All Nursery Representatives - Reports and Discussion - New Developments, Machines, Methods and Problems
G. Naughton - Walnut and Cottonwood Improvement Program
B. Ekblad - Green House
D. Hallman - Survey of Nursery Equipment Needs
J. McConnell - Eastern Tree Seed Laboratory
R. Tinus - Improvements in the Greenhouse Container Process for Raising Tree Seedlings
R. Clark/R. Rulon - Tree Seed Panel

BUSINESS MEETING

The Intermountain Nurserymen agreed to postpone the 1974 official meeting in lieu of the scheduled International meeting of the North American Containerized Forest Tree Symposium in Denver, Colorado. They also agreed to meet at the State Forest Tree Nursery in Missoula, Montana in 1975.

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The 15th Meeting of the Intermountain Nurserymen's Association was held at Missoula, Montana August 5-7, 1975. Sixty five people attended the meeting hosted by the State Forest Tree Nursery, Department of Natural Resources and Conservation. Willis Heron, Nursery Supervisor, was host. Gareth Moon, State Forester, welcomed the group to Montana, and Wayne Hite, U.S. Plywood Corporation, gave the keynote address. The group enjoyed a banquet one evening and tours of the State Forest Tree Nursery in Missoula, U.S. Plywood greenhouse in Bonner, and viewed out-planted seedlings of container and bare root stock in the area.

TECHNICAL AGENDA - Papers by:

E. Salmonson - Future Needs From Intermountain Nurseries
B. Heintz - Shelterbelts
R. Meyn - Mine Reclamation
R. Tinus - Are Bare Root Nurseries Obsolete
L. Mason -
S. Kohler - Insect and Disease in Nurseries
R. Williams - Study of Soil Fungi in Coeur d'Alene Nursery
R. LaRue - Pesticide Laws and Regulations
T. Landis - Mycorrhizae Culturing for Test Nurseries
S. McDonald - Frozen Stock Storage Studies
M. Morton - Genetic Improvement
R. Cunningham - GP-13 Juniperus Study
F. TerBush - Tree Seed Zones
L. Hinds - Seedling Grade
L. Nicholson - Environment
R. Hallman; J. Lott; D. Rising - Equipment Catalog, equipment survey, precision seeder, monitoring greenhouse environment, small seed lots, intensive nursery culture
R. Tinus - Observations and New Information on Greenhouse Container Systems
S. McDonald - Grayco Lifter Modification
G. Naughton - Germination Curves for Kansas Black Walnut

BUSINESS MEETING

The Nurserymen agreed to meet in British Columbia, Canada in 1976 and Kansas in 1977. No further business evolved, but the merits of meeting every other year with the Western Forest Nursery Council was discussed.

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The 16th Meeting was held at Richmond, British Columbia, Canada on August 10-12, 1976. One hundred twenty people registered for the joint meeting of the Intermountain Nurserymen's Association and the Western Forest Nursery Council. The Vancouver airport Hyatt House was the location of the meeting, with Bayne Vance presiding as chairman. Mr. E. L. Young, Chief Forester, British Columbia Forest Service, gave an inspiring welcome address. A banquet was held one evening, and nursery tours were made to Green Timbers Nursery near Whalley; Corbetts Nursery at Aldergrove, and the Surrey Nursery which demonstrated container and bare root production, the paper pot containers, and automated container sowing equipment.

TECHNICAL AGENDA - Papers by

R. Danielson - New Seed Stratification Techniques for Ponderosa Pine and Douglas-fir
J. Lott - Testing of Bareroot Sowing Equipment
J. Arnott - Container Production of High Elevation Species
J. Bryan - Operational Experiences with the Stan Hay Bare-Root Precision Seeder
J. Sutherland - Nematode Control
J. Dangerfield - Mycorrhizae and Conifer Seedling Production

W. Lopushinsky - The Significance of Shoot-Root Ratio for Survival and Growth of Outplanted East-Cascade Douglas-fir and Ponderosa Pine
 J. Edgren - Seedbed Density and Recovery of Douglas-fir
 D. Lavender/R. Hermann - Effect of Length of Pruned Roots Upon Performance of Douglas-fir Planting Stock
 E. Van Eerden - Liming of Container Growing Media
 S. Slayton - Top Pruning For Size Control
 J. Kinghorn - Irrigation of Container Seedlings
 P. Hahn - Mechanical Handling and Growing Seedlings in a Quarterblock System
 R. Hermann - Herbicide Trials
 N. Pelton - Mudpacking
 W. Stein - Conifer Seedlings Packaging and Storage
 A. Todd - Packaging and Cold Storage Procedures
 S. Cowles - Nursery Bedhouse Trials
 J. Sweeten/J. Arnott/B. Devitt/E. Van Eerden/W. Revel - Panel Members: The Relationship Between Container and Bareroot Stock Size and Outplanting Survival

BUSINESS MEETING

The Intermountain Nursery group re-confirmed their wishes to meet in Manhattan. Kansas in 1977.

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On August 9-11, 1977, the Intermountain Nurserymen's Association held their 17th Annual Meeting at Manhattan, Kansas. The host was William Loucks, State and Extension Forestry Department of Kansas State University. Sixty-five people were registered. A banquet and field trip were enjoyed, including a tour of the Kansas State Greenhouse and Lath House operations.

TECHNICAL AGENDA - Papers by:

P. Hoekstra - The Washington Scene
 S. McDonald - Western Nursery Situation
 C. Lantz - Eastern Nursery Situation
 R. Read - Tree Improvement in the Great Plains
 R. Cunningham - Certification, Registration, and Release of Tree and Shrub Reproductive Material
 E. Belcher/R. Karrfalt - Better Seeds for Nursery Sowing
 P. Laird/R. Boyd - Results of Fall Lifting and Overwinter Storage Trials at the Coeur d'Alene Nursery
 W. Rietveld/R. Williams - Detection of Dormancy in Black Walnut Seedlings with the Shipmeter and an Oscilloscope Technique
 J. Riffle - Ecyomycorrhizal Inoculation of Nursery Seedbeds and Container Growing Media
 R. Sandquist - Pesticide Regulations as They Effect Nurserymen and Herbicides in the Nursery
 H. Thompson - Insecticides for Use in the Nursery
 D. Dutton - Uses of Organic Fertilizer at Wind River Nursery
 T. Landis - Analysis and Interpretation of Foliage Nutrient Levels in Tree Seedlings
 W. Stein - Production and Use of Container Seedlings in the West
 R. Tinus - Production of Container Grown Hardwoods
 J. McClatchey - Biodegradable Containers
 G. Peterson - Fungicides in Tree Nurseries
 J. Lott - Progress Report Missoula Equipment Development Center
 E. Perry - The Construction and Use of the Humboldt Nursery Tarp Roller
 L. Rempel - Mechanization of Saskatchewan Nurseries
 J. McCutcheon - Saskatchewan Nursery Operations
 B. Elliott - New Developments at Albuquerque Tree Nursery
 R. Fewin - A New Windbreak Nursery Facility for Texas
 R. Laframboise - Containerized Greenhouse at Towner Nursery
 J. Scholtes - Recent Development at Mt. Sopris Tree Nursery
 W. Prather - Utah State Nursery Developments and Future Nursery Plans
 P. Etheridge - Pine Ridge Forest Nursery Development and Design
 E. Perry - Development and Expansion of the Humboldt Nursery
 F. Morby - New Developments at Medford Forest Nursery
 M. Strachan - Colorado State Forest Service Nursery
 D. Miller/R. Schaefer III - Potlatch Begins Container Production at Lewiston, ID
 G. Finger - An Introduction to Weyerhaeuser Southern Nursery Operations
 M. Frolich - Development of New Production Facility in Southern Nevada
 F. Ter Bush - Publication
 S. McDonald - Forest Tree Nursery Energy Considerations

BUSINESS MEETING

A short business meeting was held to decide that the 1978 Intermountain Nurserymen's Association meeting would be held in Eureka, California in conjunction with the Western Forest Nursery Council. The 1979 meeting is being planned for the Mt. Sopris, Colorado area.

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The 18th Annual Meeting of the Intermountain Nurserymen's Association was held in conjunction with the Western Forest Nursery Council on August 7-11, 1978 in Eureka, California. Don Perry was chairman and host for the conference, which caused problems as facilities were not planned for the large attendance. A dinner was held at the Samoa Cookhouse, where Stan Schmidt spoke of "The Fabulous Redwood Empire." Simpson Timber Company hosted a California wine tasting experience and a salmon barbecue. The 1-day field trip toured the Clotilde Merlo Forest Nursery, the Humboldt Nursery, and the Simpson Forest Nursery. The keynote address was given by Huey Johnson, California Secretary for Resources.

TECHNICAL AGENDA - Papers by:

F. Morby - An Approach to Fertilization of Bare Root Conifer Seedlings
P. Hahn - Nutrient Requirements of Containerized Nursery Stock
S. McDonald - Irrigation Monitoring in Western Forest Tree Nurseries
J. Lemhouse - Managerial Accounting: Enterprise Cost Accounting for Nurserymen
L. Nickolson - Double or Triple Sorting of Tree Lots
T. Williams - Observation of Coast Redwood Bare Root Seedlings
H. Baer - Redwoods - How to Grow Them in Containers
J. Rydelins - Korbel Forest Nursery: Purpose, Production, Species, and Progress
J. Edgren/M. Greenup/J. Reynolds - An Operational Root Wrenching Trial at Humboldt Nursery
J. Jenkinson/J. Nelson - Seed Source Lifting Windows for Douglas-fir in the Humboldt Nursery
W. Stein - An Integrated Study of Nursery Stock Conditioning Preliminary Observations on Stock Performance
A. Jaramillo - An Integrated Study of Nursery Stock Conditioning: Oscilloscope Readings and Cold Hardiness
C. Cordel/D. Marx - National Pisolithus tinctorius Ecomycorrhizae Nursery Evaluation
M. Srago - The Establishment of Mycorrhizae Using Excised Roots as Inoculum
R. Sandquist - Status of Western Nursery Herbicides Screening Project
R. Stewart/R. Owsten/H. Weatherly - Evaluation of Six Herbicides for Weed Control in Pacific Coast Forest Nurseries
M. Srago - Nursery Disease Problems: Sirococcus Strobilinus
M. Srago - Nursery Disease Problems: Phoma Blight
A. McCain - Nursery Disease Problems: Containerized Nurseries
L. Gillman/R. James - Nursery Disease Problems: Fungicidal Tolerance of Botrytis Cinera
R. Tinus - Shelterbelts for Nurseries
F. Ter Bush - Seedling Production Contract Growing
E. Belcher - Service at the Eastern Tree Seed Laboratory
T. Greathouse - The Importance of Matching Forest Tree Seed Source with Reforestation Site
B. Lowman - Dewinger for Small Seed Lots
J. Campini - Recent Seed Processing Machinery and Techniques
J. Thomas - Principles of Gravity Separation
F. Deneke/T. Landis - The Value of Quality Seed in Forest Tree Nursery Operations and Reforestation Programs
R. Danielson - Methods of Measuring Seed Quality
R. Silen/C. Osterhaus - Reduction of Genetic Base by Sizing of Bulk Douglas-fir Seedlots
R. Tinus - Effect of Parent Tree and Crop Year on Scots Pine Seed Weight
E. Belcher - Aspects of Seed Quality
L. Hinds - Special Processing Techniques of Hardwoods and Shrubs
A. Plummer/K. Jorgensen - Harvesting, Cleaning, and Storing Seed of Western Shrubs
F. Ter Bush - Commercial Services
J. Rydelius/E. Belcher - Cleaning Redwood Seed
S. McDonald - Report to the Intermountain Nurserymen's Association by the Nursery Stock Grading Standards and Nomenclature Committee
S. McDonald - Forest Tree Nursery Soils Testing Program
J. Lott - Overview of the Missoula Equipment Development Center's Current Reforestation Program

BUSINESS MEETING

Steve McDonald submitted his report to the Forest Tree Planting Stock Standards Committee and his report on the nursery soil testing program. The Intermountain Nurserymen were invited to hold their 1979 meeting in the Mt. Sopris Nursery in Colorado.

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The 19th Meeting of the Intermountain Nurserymen's Association met on August 13-16, 1979 at Aspen/Snowmass, Colorado. John Scholtes was the host nurseryman. Attendance was 124. A banquet and luncheon were held at the Snowmass Inn. The field tour for 1 day was held at the Mt. Sopris Federal Nursery, and mine spoil revegetation was observed near Redstone.

TECHNICAL AGENDA - Papers by:

R. Huber - Nursery Scene in Western Canada
C. Lantz - Progress Report: Seedling Production in the South
F. Ter Bush - The Northwest Scene
S. McDonald - The Nursery Situation in the Interior West in 1979
K. Goldsberry - Greenhouse Safety - For Plants and People Alike
R. Ryker - Western Nursery Herbicide Study - 1979 Update
N. Callan - Dacthal Injury on Douglas-fir and True Firs at the Medford Forest Nursery
R. Sandquist - Registration of Herbicides for Use on Forest Nursery Seedbeds
C. Cordell/D. Marx - National Pisolithus tinctorius Ectomycorrhizae Nursery Evaluation Results - 1978
J. Lott - Nursery Equipment Development at Missoula Equipment Development Center
F. Solan/D. Bickelhaupt/A. Leaf - Soil and Plant Analytical Services for Tree Nurseries
S. McDonald - The Soil Testing Program for Tree Nurseries and the Soil Management Workshop
T. Williams - Nursery Management Information System
D. Wermlinger - Contract Pulling
P. Au/T. Hale - Pine Ridge Forest Nursery Container Filling and Seeding Systems
J. Myers - Greenhouse Cropping and Container Washing
B. Elliott - Albuquerque Tree Nursery
F. Morby - Developing a New Nursery
P. Guthrie - Bureau of Indian Affairs Reforestation Policies and Programs
M. Becwar/M. Burke - Low Temperature Extremes: Their Effect on Plants at Timberline
J. O'Brien/J. Fisher - Seed Handling and Large Scale Production of New Mexico Native Junipers
T. Landis - The Saline Soil Syndrome and its Effect on Bare-Root Production in Two Rocky Mountain Area Nurseries
C. Kerr/J. Stehlik/R. Stakes - Trees in the Tundra
G. Walters/H. Horiuchi - Containerized Seedlings: Key to Forestation in Hawaii

BUSINESS MEETING

The Intermountain Nursery group agreed to meet at the Lucky Peak Nursery in Boise, Idaho in 1980.

The Intermountain Nurserymen also expressed interest in attending the North American Forest Tree Nursery Soil Management Workshop to be held in Syracuse, New York in July 1980.

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The 20th Meeting of the Intermountain Nursery Association met in conjunction with the Western Forest Nursery Council on August 12-14, 1980 at the Lucky Peak Nursery in Boise, Idaho. Richard Thatcher, host nurseryman, was chairman of the meeting. One hundred sixteen persons were in attendance. Ralph Peinecke of the Boise Cascade Corporation gave the welcome address, and R. Max Peterson, Chief of USDA Forest Service, addressed the group on present and future trends. A tour of the Lucky Peak Nursery was experienced by the entire group.

TECHNICAL AGENDA - Papers by:

R. Huber - Canadian Nursery Update
R. Tinus - Forestation Concepts and Practices Developing in New Zealand
T. Landis - Report of the North American Forest Soils Workshop
L. Hinds - The American Association of Nurserymen and its Government Nursery Production Committee
R. Ryker - Evaluation of Herbicides for Weed Control in Rocky Mountain- Great Basin Nurseries
D. Edwards - The Western Forest Tree Seed Council
R. Matye - An Introduction to the Westfir Transplant Nursery

C. Cordell/D. Marx - Ectomycorrhizae: Present Status and Practical Application in Forest Tree Nurseries and Field Plantings
 S. McDonald/R. Tinus/C. Reid - Root Morphology Control in Forest Tree Seedling Containers
 A. Borchert - Quality Cone Collection
 A. Elliott - Use of Solar Energy to Dry Cones at the Albuquerque Tree Nursery
 D. Altmann/P. Au/L. Lafleur - Production Seed Processing at Pine Ridge Forest Nursery
 D. Edwards - A New Prechilling Method for True Fir Seeds
 F. Zensen - Seed Processing: Management Techniques
 E. Hardin - Quick Test Vs. Standard Germination Test
 J. Zaerr/B. Cleary/J. Jenkinson - Scheduling Irrigation to Induce Seedling Dormancy
 M. Triebwasser/D. Overhulser - The Cranberry Girdler in Conifer Nurseries of Western Washington and Oregon
 A. Jaramillo - Review of Techniques Used to Evaluate Seedling Quality
 J. Hinz - Techniques of Quality Control for Seedling Lifting Operations
 D. Dutton - Quality Control: Tree Processing Operation M. Shearer - Requirements for Quality Irrigation
 G. Jacobsen - Field Handling
 A. Dahlgreen - Field Handling and Planting
 D. Jensen - Mine and Roadside Revegetation in Montana
 M. Frolich - Impact of Desert Forestry on the Plant Materials System of Nevada
 T. Williams - Nursery Management Information System

BUSINESS MEETING

The Intermountain Nurserymen agreed to meet in Edmonton, Alberta, Canada in August 1981.

A discussion was held as to the merits of joining the Intermountain Nursery group with the Western Forest Nursery Council. No decision was made.

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The 21st Annual Meeting of the Intermountain Nurserymen's Association was held in Edmonton, Alberta, Canada on August 11-13, 1981. Ralph Huber was host nurseryman and chairman of the Meeting. Ninety four persons registered for the meeting which was marred by the inability of several nurserymen to use air transportation because of strikes in the United States. A banquet and luncheons were sponsored by several Canadian companies. A 1-day tour of the Alberta Forest Service Pine Ridge Forest Nursery and the Alberta Tree Nursery (Oliver Nursery) were experienced by the entire group.

TECHNICAL AGENDA - Papers by:

C. Dermott - Reforestation at the Ridge Forest Nursery
 H. Oosterhuis - Alberta Tree Nursery and Horticulture Centre
 A. Kiil - Reforestation Research in the Prairies: An Overview
 S. Wallner/J. Bourque/T. Landis/S. McDonald/R. Tinus - Cold Hardiness Testing of Container Seedlings
 R. Tinus - Successful Overwintering of Container-grown Seedlings
 H. Spencer - The Painful Problems of Pioneer Propagation Plans and Other Adventures
 I. Edwards - Maintaining Soil Fertility in Forest Nurseries in the Prairie Provinces
 F. Morby - Irrigation Regimes in a Bare-Root Nursery
 T. Landis - Irrigation Water Quality in Tree Nurseries in the Inland West
 R. Esau - Herbicide Investigations in Coniferous Tree Nurseries in Saskatchewan and Alberta
 G. Brown - Field Vacuum Seeder
 B. Polhill - Monitoring Growth Progression Through Root Collar Diameter Measurements
 R. Day - Evaluating Root Regeneration Potential of Bare-Root Nursery Stock
 A. Wynia - Using Cost Accounting in Nursery Management
 R. Bell - IFSCO Cone Handling and Dry Kiln System
 R. Schaefer - Cone Handling System From Field to Processor
 A. Suhrbier - Avoiding the Nursery-customer war (more aptly, keeping the battles down to only customers you really don't want to deal with anyway)

BUSINESS MEETING

A motion was made for the Intermountain Nurserymen's Association to merge into one single group with the Western Forest Nursery Council. The motion carried. The Western Forest Nursery Council planned to vote on the merger at its 1982 meeting.

The Nursery group agreed to hold their 1982 meeting as a combined meeting in Medford, Oregon. The 1983 meeting was planned for Las Vegas, Nevada.

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The 22nd Meeting was held on August 10-12, 1982. The Intermountain Nurserymen's Association met in a combined meeting with the Western Forest Nursery Council in Medford, Oregon. Frank Morby was the host nurseryman and chairman for the joint meeting. Robert Devlin, Forest Supervisors of the Rogue River National Forest, gave the welcome address. A 1-day tour of the J. Herbert Stone Nursery was experienced by the group. A banquet and luncheons were very successful. One hundred eighty three registered for attendance.

TECHNICAL AGENDA - Papers by:

B. Sery - Small Seedlot Extractory Dorena Tree Improvement Center
M. Hale - Seed Cone Processing at the Bend Pine Nursery
R. Guariglia - True Fir Stratification - A Field Test
R. Tinus - Sand and Hydrogel Seed Covering Improves Germination of Several Hardwoods in Soil That Crusts
D. Hansen - Bedhouse Seedling Production
R. Adams - Irrigation According to PMS and Tensiometer Instruments
R. Eide - Cultural Practices in Growing Western Hemlock and Sitka Seedlings
D. Dutton - Chinese Weeder Geese - Do They or Do They Not Weed in the Nursery
C. Chatterton - Residual Napromide and its Effect on Western Larch at Coeur d'Alene Nursery
C. Youngberg - Soil Testing and Soil Fertility
J. Jenkinson/J. Nelson - 1-0 Douglas-fir: A Bare-Root Planting Option
L. Heidmann - An Initial Determination of the "Lifting Window" for Ponderosa Pine Seedlings Raised at Albuquerque, New Mexico
B. Thompson - Why Fall Fertilize
J. Fischer - Response of Douglas-fir and Ponderosa Pine to Phosphorous Fertilization at the J. Herbert Stone Nursery
J. Laturner - The Belted Seedling Lifter
P. Heide - The Fobro 1500 Forest Nursery Tree Lifter
J. Sedore - Trends in Container Seedling Production
P. Hahn - Containerized Seedling Production in a Shelter House System
R. Schaefer/F. Kidd - Root Egression From Potlatch Corporation Containerized Seedlings
K. Doughton - Transplanting the Douglas-fir Plug
H. Oosterhuis - The Production of Coniferous Transplants Using Spencer Lemaire Containers
J. Lott - Missoula Equipment Development Center - Reforestation Program
D. Lavender/D. McCreary - Effects of Harvest and Packing Technique on Douglas-fir Seedlings
L. Nicholson - The Importance of Good Nursery Quality Control Part 1
C. Hayhurst - The Importance of Good Nursery Quality Control Part 2
K. Seppa - What's New in Herbicides
J. Chandler - Nursery Management Information System
R. Schaefer - Potlatch's Reporting System for Tracking seedling Crops From Requisition to Plantation
R. Thatcher - Contract Grading - Boom or Bust
R. Miller - USDA, Forest Service Nursery Capacity and Stock Needs
S. Schalla - The Capability of Private Nurseries to Meet Federal Long-Term Needs
J. Edgren - Should Private Nurseries Produce Seedlings for Federal Reforestation Programs

BUSINESS MEETING

The meeting was chaired by Frank Morbey, host nurseryman. The subject of combining the Intermountain Nurserymen's Association and the Western Forest Nursery Council was discussed and voted on by the Western Forest Nursery Council membership. A vote was taken and a count of 29 against and 24 for was gathered. The Intermountain Nurserymen voted for merging the two organizations in 1981 at the Edmonton meeting. The two organizations will remain separate at this time. The opportunity to attend the meeting of both groups continues to remain available to all.

The Intermountain Nursery Group will meet in Las Vegas, Nevada in August 1983.

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The 23rd Meeting of the Intermountain Nurserymen's Association was held on August 8-11, 1983 in La Vegas, Nevada. Pat Murphy, Assistant State Forester hosted the meeting. Seventy eight registered for the meeting. Native Plant Materials was the theme for the meeting. Field tours were held at the Nevada State Nursery and Greenhouse.

TECHNICAL AGENDA - Papers by:

J. Young/J. Bundy/R. Evans - Germination of Seeds of Windland Plants
N. Shaw - Producing Bareroot Seedlings of Native Shrubs
T. Landis/E. Simonich - Producing Native Plants as Container Seedlings
S. Monsen - Use of Shrubs on Mine Spoils
D. Nelson - Toward Producing Disease-Free Container-Grown Native Wildland Plants
R. James - Biology and Management of Botrytis Blight
R. Tinus - Salt Tolerance of Ten Deciduous Shrub and Tree Species
J. Sedore - Containerized Seedling Production for Forest Regeneration in the Pacific Northwest
M. Duryea/S. Omi - The Nursery Technology Cooperative: A Coordinated Effort to Improve Seedling Quality
D. McCreary - Using a Pressure Chamber to Detect Damage to Seedlings Accidentally Frozen During Cold Storage
R. Campbell, Jr. - Asexual vs. Sexual Propagation of Quaking Aspen
J. Fisher/G. Fancher - Effects of Soil Amendments on Aspen Seedling Production
H. Khatamian/F. A1-Mana - Growth of Austrian Pine and Norway Spruce Seedlings in Mini-Containers
R. Hallman - Equipment for Revegetating Disturbed Lands
R. Karrfalt/R. Helmuth - Preliminary Trials on Upgrading Platanus Occidentalis with the Helmuth Electrostatic Seed Separator
J. Budy/E. Miller - Survival, Growth, and Root Form of Containerized Jeffrey Pines 10 Years After Outplanting
T. Smith - Growing Containerized Tree Seedlings in a Shadehouse

BUSINESS MEETING

The Intermountain Nurserymen's Association agreed to meet in 1984 in Coeur d'Alene, Idaho in conjunction with the Western Forest Nursery Council. The 1985 meeting was planned for Ft. Collins, Colorado.

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One hundred ninety persons registered for the 24th Meeting of the Intermountain Nurserymen's Association meeting in Coeur d'Alene, Idaho August 14-16, 1984. The meeting was held in conjunction with the Western Forest Nursery Council. This was the largest attendance to date for the joint meeting. Darrell Benson, host nurseryman, was chairman for the meeting. Luncheons and a catered dinner on a recreation boat on Coeur d'Alene Lake were enjoyed by all. Field tours were held at the USDA Coeur d'Alene Nursery.

TECHNICAL AGENDA - Papers by:

S. Altsuler - Plug Seedling Success in the High Country
D. Miller/R. Schaefer - Effects of Container Size on White Pine and Douglas-fir Survival and Growth in North Idaho
J. Arnett - Photoperiod Control of Container Seedling
T. Jopson/J. Paul - Influence of Fall Fertilization and Moisture Stress on Growth and Field Performance of Container-Grown Douglas-fir Seedlings
J. Lott - Forest Service Equipment Development Reforestation Program
R. Thatcher - Contract Grading
F. Zensen - Lift and Pack Procedures at the J. Herbert Stone Nursery
R. Darbyshire - Impacts of Nursery Processing on the Survival and Growth of 2+0 Douglas-fir
J. Jenkinson/ J. Nelson - Cold Storage Increases Resistance to Dehydration Stress in Pacific Douglas-fir
S. Cooley - Solarization in Two Pacific Northwest Forest Nurseries
D. Booth - Fluid Drilling for Wildland Plantings: Some Preliminary Studies
R. Huber - New Seeding and Lifting Concepts in British Columbia
M. Hale - Designing the Bend Nursery Tree Inventory System
A. De Haas - The Placerville Nursery Seedling Lifting Bar
R. Langmo/J. Washburn - Seedling Net-Spreading Aid
J. Scholtes - Update on Northeastern Nurseries
P. Au - Pre-emergent Herbicide Trial in White Spruce at Pine Ridge Forest Nursery
J. Doty - Top Mowing at Viewcrest Nurseries
W. Ellington - New Ideas in Fall Planting
B. Thompson/J. Faulconer - Benefits of Knowing Seedling Quality
R. Guariglia/B. Thompson - The Effect of Sowing Depth and Mulch on Germination and 1+0 Growth of Douglas-fir Seedlings
L. Heidmann/S. Haase - Herbicides for Controlling Weeds at the Albuquerque Forest Tree Nursery
P. Malone - Germination of Western White Pine Seed
F. McElroy - Soil Pest Management Programs for Bareroot Nurseries
R. Moreno - Maximum Germinants/Unit of Seed as a Tool for Calculating Bareroot and Container Sowing Calculations

F. Rothe - "Grow and Plant"--Another Way to Do the Job
W. Schroeder - Field Production of Rooted Poplar cuttings for Prairie Plantings
J. Sedore/W. Fangen - Transplant Comparisons at the Webster Nursery Plug-is and Bareroot 2-is
W. Sery - Growing Seedlings in Pallet-sized Containers
G. Shrimpton - Four Insect Pests of Conifer Nurseries in British Columbia
W. Stein - Effects of Wrenching Douglas-fir Seedlings in August
N. Vance - Light Reduction and Moisture Stress: Effects on Containerized Western Larch Seedlings
C. Youngberg - Organic Matter-How Much is Enough?

BUSINESS MEETING

The meeting was chaired by Darnell Benson. It was announced that the 1985 meeting of the Intermountain Nurserymen's Association would meet in Ft. Collins, Colorado in August. The joint meeting of the Intermountain Nurserymen and the Western Forestry Nursery Council will meet in Olympia, Washington in 1986. The Intermountain Nurserymen's Association will be in Oklahoma in 1987.

Tom Landis indicated that a problem exists on how to finance the publication of the proceedings of the nursery conference meetings. A show of hands indicated they would support the printing of proceedings through an additional reasonable fee collected from the membership.

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The 25th Meeting of the Intermountain Nurserymen's Association was held in Ft. Collins, Colorado on August 13-15, 1985. Marvin Strachan, host nurseryman, was meeting chairman. Eighty three people registered for the new concept meeting which featured four concurrent groups to discuss priority topics. Tours included the Colorado State Forest Service Nursery and ecological conditions in Rocky Mountain National Park. A luncheon was held at CSU and a western cookout at Estes Park. Several commercial exhibitors were present.

TECHNICAL AGENDA - Papers by:

S. Dronen - Value of Windbreaks
R. Tinus - In-bed Herbaceous Windbarrier Produced More Ponderosa Pine Seedlings
A. Myatt/M. Vorwerk - Administrative, Economic, and Technical Observations in Developing and Maintaining an Effective Weed Control Program
G. Neill - Nursery Research: A Practical Approach
S. Omi - Soil Compaction: Effects on Seedling Growth
J. Grebasch - Computer Use in Nursery Management
W. Crenshaw - Recent Developments in the Management of Nursery Pests
K. Burr - Greenhouse Production of Quaking Aspen Seedlings
K. Eggleston/R. Sharp - Fertilizer Trials on Containerized Red Pine
R. Danielson - Stratification and Germination of Western White Pine Seeds
J. Hamilton - Development of Underground Cold Storage at Pine Ridge Forest Nursery
J. Barnett/J. Johnson/N. Stumpf - Effects of Ethylene on Development and Field Performances of Loblolly Pine Seedlings

WEED CONTROL PANEL:

L. Alspach - Herbicides for Weed Control in Tree Nurseries
L. Abrahamson - Forest Tree Nursery Herbicide Studies in the Northern Great Plains & Herbicide Phytotoxicity Tables
R. Darbyshire - Herbicides for Conifers: What's New

SEEDLING QUALITY PANEL:

K. Munson - Principles, Procedures, and Availability of Seedling Quality Tests
D. Simpson - When to Measure Seedling Quality in Bareroot Nurseries
C. Johnson - How to Use Seedling Quality Measurements in Container Nurseries

BAREROOT SEEDLING FERTILIZATION PANEL:

T. Landis/J. Fischer - How to Determine Fertilizer Rates and Application Timing in Bareroot Forest Nurseries
R. Selig - Soil Mapping and Testing
I. Edwards - How to Maximize Efficiency of Fertilizers in a Forest Tree Nursery

POSTER PAPER:

K. Burr/S. Wallner/R. Tinus - Cold-Hardiness Testing of Conifer Seedlings

BUSINESS MEETING

The meeting was chaired by Marv Strachan, host nurseryman, following the noon lunch at Lyons Park during the Field trip. It was reconfirmed that the 1986 joint meeting would be held in Olympia, Washington. The Oklahoma delegation stated that plans were proceeding for the Intermountain Nurserymen to meet in Oklahoma in 1987. The Utah delegation offered to host the Intermountain Nursery group in 1989. A motion was made, seconded, and carried by a majority vote to change the name of the Association from "Intermountain Nurserymen's Association" to "Intermountain Nursery Association."

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The 26th Meeting was held on August 12-15, 1986. The Intermountain Nursery Association met in a combined meeting with the Western Forest Nursery Council in Tumwater, Washington. Jim Bryan, Ken Curtis, and Kevin O'Hara were the host nurserymen and chairpersons for the meeting. John McMahon, Weyerhaeuser Company, gave an inspiring opening address. One hundred eighty seven registered for the meeting. Field tours of the I.F.A. Toledo Nursery, the Weyerhaeuser Mima Nursery, and the Washington State Webster Nursery were experienced by the entire group.

TECHNICAL AGENDA - Papers by:

R. Shearer - Western Larch Cones and Seeds - Current Intermountain Research Station Studies
R. Piesch - Tree Improvement Comes of Age in the Pacific Northwest: Implications for the Nurseryman
T. Smith - Stratification Reduced Germination of Ponderosa Pine Seed Collected in New Mexico and Southern Colorado
C. Gansel - Comparison of Seed Stratification Methods for Western White Pine
W. Johnson - Excised Embryo Test for Western White Pine
M. Coleman/J. Dunlap/D. Dutton/C. Bledsoe - Nursery and Field Evaluation of Compost-Grown Coniferous
S. Omi/G. Howe/M. Duryea - First-year Field Performance of Douglas-fir Seedlings in Relation to Nursery Characteristics
J. Jenkinson/J. Nelson - Winter Sowing for Production of 1-0 Douglas-fir Planting Stock
E. Olson - Weed Control - Alternatives to Herbicides
S. Steinfeld - Seedling Monitoring During the 1-0 Growing Season
T. Smith - Growing Seedlings on a Production Scale in a Shadehouse
G. Ritchie - Some Effects of Cold Storage on Seedling Physiology
S. Hee - Freezer Storage Practices at Weyerhaeuser nurseries
R. Danielson - Seed Laboratory Computerization: A Database for the Forest Tree Seed Industry
V. Wyant - Nursery Crop Management Computer System
D. Bluhm - Using the HP71 Hand-Held Computer for Seedling Inventory
G. Hileman - Root Growth Capacity System
D. Dolata - Root Regeneration Potential
R. Tinus/K. Burr/S. Wallner/R. King - Relation Between Cold Hardiness, Root Growth Capacity, and Bud Dormancy in Three Western Conifers
K. Burr/R. Tinus/S. Waller/R. King - Comparison of Four Cold Hardiness Tests on Three Western Conifers
W. Rietveld - A New, More Efficient Method to Evaluate Root Growth Potential of Planting Stock Using a Root Area Index
R. Laacke/C. Weatherspoon/R. Tinus - Monitoring Cold Hardiness of Tree Seedlings by Infrared Thermography
B. Dunsworth - Root Growth Potential in Coastal Container Species: Trends From Operational Testing and Prediction of Outplanting Performance
P. Hamm/E. Hansen - Stem Canker Disease of Douglas-fir in Nurseries
R. James - Occurrence of Fusarium on Conifer Tree Seed from Northern Rocky Mountain Nurseries
A. Kanaskie - Management of the Top Blight Disease Complex
P. Hamm/E. Hansen - Phytophthora Root Rot in Forest Nurseries of the Pacific Northwest
S. Cooley - Management of Phytophthora Root Rot in Pacific Northwest Conifer Nurseries
G. Shrimpton - Some Insect Pests of Conifer Seedlings in British Columbia
K. Russell - Reducing Fusarium Top Blight in 1-0 Douglas-fir by Irrigation Scheduling
F. McElroy - Options in Controlling Soilborne Pests
F. McElroy - Use of Meta-Sodium and Dazomet Fumigants
Y. Tanaka/K. Russell/R. Linderman - Fumigation Effect on Soilborne Pathogens, Mycorrhizae, and Growth of Douglas-fir Seedlings
D. Overhulser/P. Morgan/R. Miller - Control and Impact of Lygus Damage on 1-0 Douglas-fir Seedlings

BUSINESS MEETING

The 1988 meeting was scheduled for Vernon, British Columbia with Ralph Huber as host. The 1989 meeting of the Intermountain Nursery Association is scheduled for Bismarck, North Dakota. The 1990 joint meeting is scheduled for the Phipps Nursery in Elkton, Oregon.

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On August 10-14, the Intermountain Nursery Association met for the 27th Meeting in Oklahoma City, Oklahoma. Al Myatt and Clark Fleege were host nurserymen and chairmen for the meeting. The theme was "Meeting the challenge of the nineties." Eighty people registered. A luncheon and cookout were featured, along with a rare treat of rattlesnake handling. Al Engstrom, former nurseryman and retired Oklahoma State Forester, was present and spoke to the group.

TECHNICAL AGENDA - Papers by:

- C. Whitcomb - Seedlings, Service, Insights
- J. South - Communication as a Design Consideration in Developing a Computerized Nursery Management Environment
- W. Rietveld/R. Ryker - Applications of Portable Data Recorders in Nursery Management and Research
- R. Erazo - Superabsorbent Hydrogels and Their Benefits in Forestry Applications
- J. Mexal/J. Fisher - Organic Matter: Short-Term Benefits and Long-Term Opportunities
- R. Oswald - The Trees Unlimited Program: An Experiment in Establishing Seedling Plantings
- K. Conway - The Potential of Soil Solarization in Nurseries to Control Soilborne Diseases
- K. Fleege - Seedling Production at Oklahoma Forestry Division Forest Regeneration Center
- S. Hallgren - Priming Treatments to Improve Pine Seed Vigor
- J. Brissette/W. Carlson - Effects of Nursery Density on Shortleaf Pine
- W. Carlson/J. Anthony/R. Plyler - Polymeric Nursery Bed Stabilization to Reduce Seed Losses in Forest Nurseries
- J. Barnett/J. Brissette - Improving Outplanting Survival of Stored Southern Pine Seedlings by Addition of Benomyl to the Packing Medium
- R. Karrfalt - Measuring Tree Seed Moisture Content Now and in the Future
- L. Abrahamson - Forest Tree Nursery Herbicide Studies at the Oklahoma Forest Regeneration Center
- D. Bickelhaupt - Use of Sulfur to Correct Soil pH
- T. Boggus - Certified Vendor Program
- W. Rievelde/R. Tinus - Alternative Methods to Evaluate Root Growth Potential and Measure Root Growth
- D. Burr/R. Tinus/S. Wallner/R. King - Comparison of Time and Method of Mist Chamber Measurement of Root Growth Potential
- S. Hallgren/C. Tauer - Effects of Lift Date, Storage, and Family on Early Survival and Root Growth Potential of Shortleaf Pine
- S. Omi/U. Schuch - Fall Lifting: Its Effects on Dormancy Intensity of Ponderosa Pine Seedlings - A Preliminary Investigation
- B. Lowman - A Status Report on Nursery and Reforestation Projects at the Missoula Technology and Development Center
- G. Kranzler/M. Rigney - Grading Pine Seedlings with Machine Vision
- C. Cordell/J. Owen/D. Marx - Mycorrhizae Nursery Management of Improved Seedlings Quality and Field Performance
- T. Filer, Jr./C. Cordell - Integrated Pest Management in Forest Nurseries
- W. Rietveld/P. Owston/R. Miller - The USFS Reforestation Improvement Program
- T. Landis - Government vs. Private Nurseries: The Competition Issue
- K. Atkinson - Working Group Sessions on Communications and the Government/ Private Nursery Issue.
 - Session I: Communications
 - Session II: Government vs. Private Nurseries

BUSINESS MEETING

The proceedings of this meeting will be published by the Rocky Mountain Forest and Range Experiment Station. The 1988 joint meeting between the Intermountain Nursery Association and the Western Forest Nursery Council will be held in Vernon, British Columbia, Canada. The 1989 meeting of the Intermountain Nurserymen will be held in North Dakota in August.

Marv Strachan has volunteered to prepare historical summary of past nursery proceedings and index them for reference.

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On August 8-11, 1988, the joint meeting of the Intermountain Nursery Association and the Western Forest Nursery Council met at Vernon, British Columbia. This was a very large group in attendance, with three hundred twenty-eight in registration. Ralph Huber, B.C. Forest Service, served as the host nurseryman and chairman for the meeting. Thirty exhibitors showed and demonstrated their products during the conference. A cookout dinner was enjoyed at the local O'Keefe Ranch, together with observation of antique farm and home equipment. A tour of the B.C. Skimikin Nursery near Salmon Arm was experienced by the nurserymen.

TECHNICAL AGENDA - Papers by:

- C. Leadem - Dormancy and Vigour of Tree Seeds
R. Bowden-Green - Province of British Columbia Ministry of Forests Seed Centre
J. Maxwell - Macro and Micronutrient Programmes in B.C. Bareroot Nurseries
W. Stein - Nursery Practices, Seedling Sizes, and Field Performance
W. Rietveld - Effect of Paclobutrazol on Conifer Seedling Morphology and Field Performance
D. Simpson - Fixing the Edsel--Can Bareroot Stock Quality be Improved?
G. Hunt - Effect of Controlled-Release Fertilizers on Formation of Mycorrhizae and Growth of Container-Grown Englemann Spruce
D. Wenny - Growth of Chemically Root-Pruned Seedlings in the Greenhouse and the Field
J. Arnott/B. Dunsworth/C. O'Reilly - Effect of Nursery Culture on Morphological and Physiological Development of Western Hemlock Seedlings
C. Hawkins/D. Draper - Height Control of Interior Spruce by Means of Photoperiodic Induction
C. Hawkins/D. Draper/R. Eng - Heating System, Germination Temperature, and Post Germination Fertilizer Regime Effects on White Spruce Nursery Growth
C. Hawkins/B. Hooge - Blackout and Post Planting Bud Phenology in SxS Spruce Seedlings
K. Odum/S. Colombo - Short Day Exposure to Induce Budset Prolongs Shoot Growth in the Following Year
R. Scagel/G. Davis - Recommendations and Alternative Growing Media for Use in Containerized Nursery Production of Conifers: Some Physical and Chemical Properties of Media and Amendments
I. Armit - The "Izing" of British Columbia Nurseries
M. Pelchat - Managing Nursery Information in the 1980's
U. Wallersteiner - Cumulative Trauma Disorders in Forest Nursery Workers
S. Grossnickle/J. Arnott/J. Major - A Stock Quality Assessment Procedure for Characterizing Nursery-Grown Seedlings
J. Faulconer - Using Forest Hardiness as an Indicator of Seedling Condition
I. Dymock - Monitoring Viability of Overwintering Container Stock in the Prairies--An overview of a 5-Year Lodgepole Pine Study
T. Landis/S. Skakel - Root Growth Potential as an Indicator of Outplanting Performance: Problems and Perspectives
W. Binder/R. Scagel/G. Krumlik - Root Growth Potential: Facts, Myths, Value
D. Simpson/A. Vyse/C. Thompson - Root Growth Capacity Effects on Field Performance
W. Binder/P. Fielder - The Effects of Elevated Post-Storage Temperatures on the Physiology and Survival of
W. Vidaver/P. Toivonen/G. Lister/R. Brooke/W. Binder - Variable Chlorophyll Fluorescence and its Potential Use in Tree Seedling Production and Forest Regeneration
K. Burr/R. Tinus - Effect of the Timing of Cold Storage and Cold Hardiness and Root Growth Potential of Douglas-fir
D. Hildebrand/G. Dinkel - Basamid and Solar Heating Effective for Control of Plant-Parasitic Nematodes at Bessey Nursery, NE
R. James/R. Dumroese/D. Wenny - Occurrence and Persistence of Fusarium Within Styroblock and Ray Leach Containers
R. Sturrock/J. Dennis - Styroblock Sanitization: Results of Laboratory Assays From Trials at Several British Columbia Forest Nurseries
R. Dumroese/R. James/D. Wenny/C. Gilligan - Douglas-fir Seed Treatments: Effects on Seed Germination and Seedborne Organisms
L. Husted - Douglas-fir Dieback
S. Campbell - Update on the Environmental Impact Statement for Pest Management at the Federal Nurseries in the Pacific Northwest Region
R. Klapprath - Greenhouse Transplants for Bareroot Stock Production
S. Hee/T. Stevens/D. Walch - Production Aspects of Mini-Plug Transplants
Y. Tanaka/B. Carrier/A. Dobkowski/R. Figueroa/R. Meade - Field Performance of Mini-Plug Transplants
M. Rigney/G. Kranzler - Computer Vision for Grading Tree Seedlings
C. O'Reilly/J. Ownes/J. Arnott/B. Dunsworth - Effects of Nursery Treatment on Shoot Length Components of Western Hemlock Seedlings During the First Year of Field Establishment
C. Sutherland/T. Newsome - Field Performance of Five Interior Spruce Stock Types With and Without Fertilization at Time of Planting
B. Dunsworth - Impact of Lift Date and Storage on Field Performance for Douglas-fir and Western Hemlock
J. Sloan - Auger Hole Shape, Size, and Tree Placement Affect Survival and Root Form of Planted Ponderosa Pine in South Central Idaho
D. Draper/D. Spittlehouse/W. Binder/T. Letchford - Field Measurement of Photosynthetically Active Radiation

BUSINESS MEETING

No official business meeting was held for the Intermountain Nursery Association because of the small number of Intermountain Nurserymen present and the large number of Canadian and Western Forest Nursery Council attendance.

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