

WESTERN ORCHARD PEST AND DISEASE MANAGEMENT CONFERENCE

The Portland Spray Conference

(1926 - 1979)

One of the oldest and most appreciated Entomology-Plant Pathology meetings in the Pacific Northwest is the Portland Spray Conference which dates back to 1926. It was on June 30 of that year at the suggestion of J. R. Parker, Associate Entomologist, Montana Agricultural Experiment Station that the first meeting was held in Tacoma, Washington. The "Western Cooperative Oil Spray Project" as it was formally named was organized at that meeting. Participants included representatives of Idaho, Montana together with representatives of the U.S.D.A. and the Canada Department of Agriculture. Mr. Parker was named Chairman. Another meeting was held in Spokane on December 5, 1926 and thereafter over the past 53 years this has been an annual gathering which has continued to grow and expand with the areas of the U.S.A. and Canada which it has served.

While early entomologists felt that application of dormant oil was advisable for control of fruit tree leafrollers, scale insects, aphids and red spider mite eggs, the most favorable weather conditions and the best time of year for the actual applications were yet to be determined. Also there were variations in oil formulations and reports of orchard oil injury were frequent. Yellow apple varieties for example were known to be particularly susceptible to oil injury. Applications made on trees in poor condition could also result in injury. Undesirable lead arsenate oil residues were occasionally reported on fruit surfaces. Notables attending the first conference included: from Washington -- E. J. Newcomer, Chairman; A. Spuler, Secretary; B. Luce; J. R. Magness; F. Overley; Doc Webster and E. L. (Bud) Reeves; from Oregon -- D. Mote, B. Thompson, L. Childs; from California -- Drs. DeOng and Bordon and from Montana -- Drs. Morris and Fisher.

E. J. Newcomer continued as Chairman from 1927 until 1958 with two pro-tem replacements: Leroy Childs, Hood River, 1946 and Fred Overley, Wenatchee, 1951.

Carl Johansen, W.S.U. mentions 1958 as the end of the Newcomer regime during which time emphasis had been on codling moth and mites with minimal time allotted to coverage of other fruit problems although Sid Jones, O.S.U., and Ken Frick, Wenatchee, reported for years on cherry fruit fly. Throughout the lead arsenate oil era, 1926-1952, apple insects and mites dominated discussions until 1949 when "the boy from Berkeley", Harold Madsen made his appearance as a youthful,

trim figure in a conservative suit. Harold confided to friends that E. J. Newcomer ran the show with a friendly iron hand being supported by other dominant figures including Leroy Childs, Hood River; Louis Gentner, Medford; and Bill O'Neil, Wenatchee. Since Harold was a protege of Dick Borden, Entomologist, Berkeley he was allowed to enter the inner circle as a raw recruit. During this period, at the end of each annual closed session, an open meeting was held with industry people who for the most part represented the Western Agricultural Chemical Association. At such meetings, recommendations were read out in a clear voice by Ken Walker, Yakima. Naturally, the recommendations were almost 100% those of Washington State since Newcomer was the highly respected boss until his retirement in 1958 when he was replaced by Horace Telford, Pullman.

In preparing this brief history it is interesting to note in a letter from George Knowlton, former extension entomologist, Utah that only half of the U.S. states in 1936 had extension entomologists and also in that year the U.S.D.A. appointed M. P. Jones as the first federal extension entomologist. Salaries averaged \$1,500.00 per year.

Next came the colorful DDT era, 1943 - 1960, and codling moth control improved dramatically. However, because of the use of this insecticide certain adverse effects were beginning to cause concern notably an increase in mite populations. About 1951 participants began preparing separate recommendations from each state. Bill O'Neil, represented Washington, Harold Madsen represented California; Newton, Colorado; and Gentner, Oregon. Beginning alphabetically on insects at 8:00 a.m., they were still on aphids at 5:00 p.m. arguing over the merits of lime sulphur for aphid control. Such state recommendations soon proved to be hopeless and instead joint research abstracts were prepared for presentation to the industry people. This procedure was adopted and has been used ever since.

One of the first plant pathologists to attend in 1935 was Earle Blodgett, Prosser and others soon followed including John Milbrath, Jess Keinholtz and Dr. Barss, Oregon; Bud Reeves and Rod Sprague, Wenatchee; C. G. Woodbridge, H. R. McLarty, Tom Lott, Dave McIntosh Maurice Welsh and Ewert Wooljams, Summerland; Gilbert Stout, Sacramento; and C. E. Scott, Berkeley. Plant pathology attendance even after the Second World War was relatively small with six to eight kindred spirits often meeting over a bottle of the same for an evening session in the Imperial Hotel. Fruit diseases including apple scab, powdery mildew, brown rot, Coryneum and fire blight were perennial problems. To control fireblight, up to 23 copper dusts per year were once reported by Scott as having been used on California pear orchards with only moderate success. A new, little understood disease called pear decline appeared in the northwest in the late 1950's. In 1960 it made its appearance in California ultimately killing over one million pear trees. Pear

decline always appeared to follow in the wake of pear psylla. Being transmissible, it was thought at the time to be caused by a virus as was also cherry buckskin Western X disease. Both diseases later were demonstrated to be caused by microplasmic organisms differing from virus incited diseases in that it could be suppressed by the application of antibiotics. New antibiotic materials in the 1960's rapidly brought fire blight under control but continued antibiotic usage encouraged the build up of fire blight resistant bacterial strains and the disease continued to ravage pear orchards. With the assistance of Dr. Milton Schroth's selective fire blight medium developed at Berkeley it became possible to determine in advance the potential fire blight bacterial levels in orchards and then spray or dust only when needed. Copper applications were often alternated with antibiotics to minimize the threat of developing resistance to antibiotics. The degree of fire blight control resulting from such advances has been significant and fire blight epidemics are now less common.

In the Western Fruit Grower magazine of January, 1957, Fred Dean, Yakima reported finding resistance of codling moth to DDT but Red Ellertson, Hood River still obtained excellent control as did Harold Madsen, Berkeley. Field investigations showed poor timing of sprays were often responsible where difficulties were reported, according to Madsen. During that period, pear psylla was being controlled to some degree with lime sulphur and oil. Somewhat earlier in the 1930's, San Jose Scale in high populations were reported by Louis Gentner, Medford but this scale declined later, to the point that it was impossible to find even on unsprayed trees. Ted Anthon about 1953 found that peach aphid was hard to control but phosdrin, thimet and demeton were effective as was also nicotine especially during warm weather. In 1957 Sid Jones, Corvallis reported on five years experience with perthane proving it to be superior to methoxychlor in controlling cherry fruit fly. Meanwhile, in plant pathology, Jess Keinholtz, Hood River when not telling colorful jokes was one of the first to report that low winter temperatures minimized powdery mildew infections. The 1958 Spray Conference officers included: George Knowlton, Utah (Chairman), Harold Madsen, Berkeley (Co-Chairman) and Tony Horne, Idaho (Secretary). Tony served for many years in this capacity as did Bob Every, Corvallis. Another highlight about that time, according to Harold Madsen, was the year that Bill O'Neil formally handed out a slip of paper saying, "parathion ½ lb. per 100 gallons is the ultimate answer to mite control". Bill lived to see how wrong he was.

The following are a few stories and anecdotes that were often told and retold over the years:

Doc Webster, W.S.U., while slightly under the influence ordering two full meals at the same time and then proceeding to consume both of them.

Rod Sprague, Wenatchee, discussing his apple powdery mildew results and being queried by Jesse Kienholtz, Hood River as to whether his plots had been set up by a statistician. Rod's reply was "Hell, I'd never let those guys in my plots".

A necktie cutting party when everyone went home with a knot and a stub (said to be the real reason why Harold Madsen never wears a tie).

Gus Howitt, Puyallup forgetting the restaurant where he had parked his car the previous evening, reporting it stolen to the police and getting it back with no reflection on his condition (one of the reasons for having lost it).

Ken Frick, Wenatchee, of cherry fruit fly fame, telling the naughtiest possible joke at an open meeting with the industry boys but failing to notice the presence of numerous ladies.

Clancy Davis almost getting beaten up by two young kids who finally decided not to hurt the "old man".

Ted Anthon, Wenatchee, discussing celery as a host of Western X disease and illustrating his report by showing a slide of a young lady appropriately wearing three celery sprigs in the proper places.

Art McCain, Berkeley, discussing Hawaiian banana leaf spot, Sigatoka disease, illustrated by one microscopic spot on a huge banana leaf beside which was standing a bikini clad Hawaiian beauty, to which he did not refer at all.

The "Chicken of the Year Award". Recipients of this high distinction received a featherless rubber chicken appropriately hung by its feet. Notables who received the award included: Clancy Davis, Berkeley, for his quiet, sober, professional demeanor on all occasions; Stan Hoyt, Wenatchee for failing to enliven methods of presentation of papers, Iain MacSwan, Corvallis for his faithful attendance at all sessions; Don Berry, Medford for never having made a single comment over 20 years; Pete Westigard, Medford for returning from a European sabbatical leave with 400 color slides (all failures) and another new child; Harry O'Reilly, Davis for going to the most ridiculous extremes to attract attention to himself by wearing a cast on one ankle, Tony Horn got the award for bowing to administrative pressure when he resigned as Secretary and finally, Everett Burts, Wenatchee for mercifully ending the "Chicken of the Year" awards.

Ed Littooy of Colliodal Products Co. was for years the well liked "Dean" of the industry group. The Western Agricultural Chemical Association (W.A.C.A.) industry sponsored dinners were often lavish. Carl Tanner of the old California Spray Chemical Company on one occasion took 17 hungry extension and research types out to dinner (for a total of \$32.00) at the Fish Grotto. Ted Anthon was in his hay day on such occasions with a fund of original and humorous stories. The old Club Portland reigned supreme as a spot where congenial people met, drank and danced. Every newcomer was genially introduced by the Manager as Vice-President of his company or of his research or extension group. There was a rumour that Iain MacSwan, Corvallis owned the place because of his frequent attendance. The old Star Theatre, one of the last burlesque houses on the seamy side of Burnside Street, was patronized by a surprisingly large number of individuals who often bore a striking resemblance to respectable professors who were sleepily nodding at the meetings the following morning.

Informal discussions with colleagues from other states and provinces were a valuable part of attending the spray conference. Of particular value were project planning sessions with industry people, many of whom were members of the W.A.C.A. Some of the most productive research and extension projects leading to successful solution of serious entomology and plant pathology problems resulted from this worthwhile cooperation with the agricultural chemical industry which until recently held its annual meeting in Portland at the same time as the Spray Conference. It was with regret that Spray Conference participants recently learned that because of the changing times W.A.C.A. meetings will no longer be held in Portland.

Until 1936 the meeting was officially known as the Western Cooperative Oil Spray Project. It was then changed to Western Cooperative Spray Project and more recently became known by its present name-- Western Orchard Pest and Disease Management Conference.

Other interesting statistics included a 1956 report from George Knowlton, Utah that in his state over 15 million dollars worth of insect damage occurred. Martin Barnes, U.C., Riverside, in a recent letter described early attempts at concentrated spraying with much credit going to workers in the northwest including Dr. J. Marshall, Summerland.

Another problem in earlier days was the so called transpiration burn on Bartlett leaves. The blackened areas on the foliage and subsequent defoliation being at first attributed to excess transpiration presumably created by high temperatures. The damage was actually caused by low populations of mites and it was not until good acaricides were

available that this was demonstrated.

The term integrated control came into common parlance in the 1960's with Everett Burts taking the lead on psylla suppression by area treatment. Stan Hoyt carried out some of the early work on integrated mite control based on utilization of predaceous mites (Phytoseiids) for which he was given a national award. In Canada, Ralph Downing initiated studies along the same lines. During this period, Jinx Proverbs, Summerland was developing sterile codling moth techniques for which he also gained international recognition.

Harold Madsen, Summerland and his intellectual offspring, Pete Westigard, Medford began studying the codling moth sex trap which lead to the development of the commercial Zoecon pheromone trap. This is now a vital tool for monitoring codling moth populations in apple pest management programs.

Some of the other prominent workers over the years include: Don Merkley, Montana; Iain MacSwan and Joe Capizzi, Corvallis; Joe Ogawa and Bill Mangy, Davis; Dave McIntosh, Cecil Morgan and Fred Banham, Summerland; Norm Leupschen and John Quist, Colorado; Don Davis, Utah; Ten Anthon and Homer Wolfe, Wenatchee; Tony Horn and Red Helton, Idaho; Bill Ackley, C.G. Woodbridge, Pullman. There are many more who should also be acknowledged.

A number of members took their turn at the Chairmanship. Those whose names are recorded include:

Horace Telford, W.S.U.; Ted Anthon; Stan Hoyt; Everett Burts, Wenatchee; Bill Butt, Yakima; Iain C. MacSwan and L.C. Terriere, O.S.U.; Pete Westigard, Medford; Red Ellertson, Bob Zwick and D. L. Coyier, Hood River; Don Davis and George Knowlton, Utah; Tony Horn, Idaho; Don Merkeley, Montana; Clancy Davis, Jack Dibble, Martin Barnes, California; Harold Madsen, Ralph Downing, Fred Banham and Harry O'Reilly, British Columbia.

Others whose names are not recorded include:

Bill O'Neil, Wenatchee; Jess Kienholz, Hood River; and Bob Every, O.S.U.

Much of the success of the meetings over the years has to be credited to the dedication of the secretaries. Those that filled this post so ably include:

Fred Overley and Ron Covey, Wenatchee; Harry Andison, Vernon, B.C.; Tony Horn, Idaho; Bill Barnett, California; Joe Capizzi, O.S.U.; Bill Hudson and D. O. Hathaway, Yakima.

So today, in conclusion, we might look ahead into the dim outline of Spray Conference meetings 50 years hence and speculate on future topics of concern.

We are aware that the discoveries and advances of the last few years portend only the humble entry and beginning of an exciting new biological era. This conference therefore challenges the young workers to probe the unknown even deeper and further, accepting nothing for granted. They are requested to report to the meeting in 50 years in the year 2029 that they have progressed but have still only scratched the surface and that there is still much more to do in this exciting world around us.

H. J. O'Reilly, Historian
Orchard, Pest & Disease Management
Conference

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NOTE: The author wishes to acknowledge the assistance of the many people who furnished information, names and anecdotes relating to this meeting.