Minutes of the 28th annual meeting of the

WESTERN COMMITTEE ON PLANT DISEASE

31 October, 2003

Grand Okanagan Lakefront Resort and Conference Centre
Kelowna, BC

In Attendence:

Name	Organization
Chair:	
T. Kelly Turkington*	Agriculture and Agri-Food Canada
Vice-chair:	
Khalid Rashid	Agriculture and Agri-Food Canada
Secretary-Treasurer:	
Ralph Lange	Alberta Research Council
Pierre Beauchamp	Pest Management Regulatory Agency
Karen Bedford	Agriculture and Agri-Food Canada
Dee Ann Benard*	Alberta Research Council
Karla Bergstrom	Alberta Agriculture, Food and Rural Development
Leighton Blashko	BASF Canada
Lynne Cronkwright	Gustafson Partnership
David Currey	Ag-Quest Inc.
Janice Elmhirst*	Elmhirst Diagnostics & Research
Coreen Franke	Saskatchewan Wheat Pool
Bruce Gossen*	Agriculture and Agri-Food Canada
Murray Hartman	Alberta Agriculture, Food and Rural Development
Yvonne Herbison	Pest Management Regulatory Agency
Russell Hynes	Agriculture and Agri-Food Canada
Gayle Jesperson*	BCMAFF
Vippen Joshi*	BCMAFF
Lori-Ann Kaminski	Canadian Canola Growers Association
Prem Kharbanda	Alberta Research Council
Randy Kutcher*	Agriculture and Agri-Food Canada
Paul Laflamme	Alberta Agriculture, Food and Rural Development
Ralph Lange*	Alberta Research Council

Name	Organization
Garth Massie	Syngenta Crop Protection
Julie McCarthy	Engage Agro
Scott McDonald	BASF Canada
Robin Morrall	University of Saskatchewan
Brenda Nailor	Engage Agro
Philip Northover*	Manitoba Agriculture and Food
Kelly Patzer	Bayer CropScience
Penny Pearse*	Saskatchewan Agriculture, Food, and Rural Revitalization
Ron Pidskalny	BASF Canada
Randy Retzlaff	Syngenta Crop Protection
Jodi Sadlier	Gustafson Partnership
Paul Sharma	Alberta Research Council
Peter Sholberg*	Agriculture and Agri-Food Canada
Rob Spencer	Alberta Agriculture, Food and Rural Development
Andy Tekauz*	Agriculture and Agri-Food Canada
Peter Volney	Canadian Food Inspection Agency
Peter Walsh	Lakeland College

* WCPD member

1.0 WELCOME & INTRODUCTIONS (T.K. TURKINGTON)

Come to order 8:15 AM. Chair Kelly Turkington made brief welcoming remarks, and brief introductions of participants were made around the room. The generous sponsorship of WFPM/WCPD was acknowledged with thanks to: Engage Agro, Grower's Supply, BASF, and United Agri Products.

2.0 ADOPTION OF THE AGENDA

Dee Ann Benard asked to add an item regarding a low salary offered for a plant pathologist position advertised by Alberta Agriculture, Food and Rural Development. (Morrall/Kharbanda – Carried)

3.0 MINUTES OF THE 26 TH ANNUAL MEETING, BANFF (R. LANGE)

Corrections to the minutes of the October 2002 Meeting were submitted by Penny Pearse (Rashid/Pearse – Carried)
[The secretary-treasurer has since made the suggested changes and posted the revised minutes on the Western Forum web page]

4.0 BUSINESS ARISING FROM THE MINUTES

4.10. TREASURERS REPORT (R. LANGE)

The WCPD bank account remains at the CIBC in Morden, MB.
Expenses were $0.00 for this period because web posting of the guidelines meant that no disks were purchased, and no mailing costs were incurred.

Total Expenses 2002	$0.00
Balance forward, 02 October 2002	$3049.05

Deposit from Western Forum, 29 May 2003	$308.12
Balance, 23 October, 2003	**$3357.17**

Report submitted by Ralph Lange. Motion to accept the report (Lange/Kharbanda – Carried)

4.11. Disposition of 2002 Resolutions

None

4.12. Correspondence

None

5.0 Appointments

The nomination committee (Turkington and Rashid) requested that those present consider standing for the following positions:
Chair (K. Rashid suggested)
Vice-chair (P. Pearse suggested)
Greenhouse crops chapter alternate chair (P. Kharbanda remains chair)
Potato chapter alternate chair required.

6.0 Reports from Editors

6.1. Guidelines Editors Report (Mardi Desjardins/ Tracy Shinners-Carnelley)

(Prepared by Mardi Desjardins, presented by Kelly Turkington)
Changes to the Guidelines went smoothly except for some minor difficulties due to changes in availability of the persons holding Chair positions. It was necessary to release the Guidelines with the Greenhouse Chapter without revisions because the original Chair became unavailable and we were unable to find a replacement to complete the document in the time remaining.
There were no changes to format, and the document was again converted to PDF format. Those with suggestions for improving the readability or format of Tables in the Guidelines are asked to direct these to the Guideline editors. When revising chemical control recommendations, please do not include rate information and remove any rates still remaining , as the WCPD has decided to keep rates out of the document due to liability issues.
For this year, the deadline for submission of revisions to the Guideline editors is November 14th. Tracy Shimmers-Carnelley is on maternity leave for this edition of the Guidelines, so Mardi will be the sole editor for this year.
(Joshi/Benard – Carried)

6.2. Slide Editors Report (Rhonda Kurtz)

No report. Rhonda Kurtz is now the slide set Chair. The slides are being converted to electronic form (CD-ROM). It was suggested that an e-mail link to Rhonda be included on the web page so that purchasers can contact her more easily. Robin Morrall thought that there may be a copyright conflict with the Canadian Phytopathological Society (CPS), as any of the images from the WCPD collection used in Diseases of Field Crops in Canada are probably copyrighted to the CPS. Robin recommended discussing the issue with Karen Bailey.

6.3. Web Site Editors Report (Ralph Lange/Dee Ann Benard)

The WCPD web page has been restructured to make the site easier to use. The URL remains the same (http://www.arc.ab.ca/extranet/wcpd/wcpd.htm), and continues to be hosted by the Alberta Research Council at no cost to WCPD. The web page contains information on meeting notices and agendas for WCPD and WFPM. A hyperlink to the CPS has been added as per request made at the October 2002 WCPD meeting. Material and suggestions for updating the page from WFPM members would be appreciated.

The WFPM is establishing a web page. The WCPD website editor suggested that the WCPD web page become part of this site, along with the web site of the WCCP. The combined web sites would be relocated to another server. This would have the advantage of allowing additional WCPD members (e.g. guidelines editors) to update the site from any location. Under the current arrangement, the WCPD website editor must be an Alberta Research Council (ARC) employee, since the editorial access to the website is limited to ARC personnel. Moving the website would allow WCPD greater freedom in selecting website editors. The WFPM web page would have its own domain name, at additional cost. (Lange/Morrall – Carried)

7.0 Status of CPS Publications and Meetings

7.1. Diseases of Field Crops in Canada

Presented by Robin Morrall. Sales are going well. The book has been nominated for three awards, and short listed for two. The CPS has embarked on translating the book into French, with a targeted completion date is June 2004, and is seeking sponsors to help reduce the purchase price. This will encourage sales to students and growers. The sponsorship drive is not yet been very successful. Plans include applications to private companies, and to provincial and federal grants. Robin would welcome any suggestions on how to locate additional potential sponsors.
Andy Tekauz suggested requesting funding from private companies operating in Quebec. He also suggested that some sponsors that had been previously approached for the English version of the book may be willing to also contribute to the French volume, since this is now a new fiscal year. Robin answered that he has no personal contacts in Quebec, but will follow up on suggested names.

7.2. Diseases & Pests of Vegetable Crops in Canada

Presented by Bruce Gossen. Sales of the French version of this book are very good; and reprinting may soon be required. In light of the upcoming reprint, do CPS members think that this book should also be revised, perhaps in cooperation with the entomologists? Vippen Joshi suggested that the book be published in electronic form.

7.3. Canadian Plant Disease Survey

Presented by Robin Morrall. Calls for submissions to CPDS have been sent. The CPDS is no longer located on the Agriculture and Agri-Food Canada web site but has been moved to the CPS sites, as all documents on AAFC sites need to be available in French. Marylin Dykstra (Section Editor for Laboratory Reports) is no longer with the University of Guelph, but will continue to serve as editor for the upcoming edition. Will a replacement be needed? Also, John Muir, in charge of the Forest Trees section, is retiring and so will need to be replaced. Robin does not have good contacts in this area of phytopathology, and so is open to suggestions.

8.0 REPORTS FROM THE PESTICIDE INDUSTRY, OR OTHERS

8.1. BASF

Presented by Scott McDonald. Scott presented a video on Lance = Endura (in USA horticulture crops) = Boscalid = BAS510. Boscalid is a new class of fungicide that inhibits Complex II of the TCA cycle. [Secretary's note: i.e. Reaction six of the TCA cycle, localized in mitochondrial inner membranes: oxidation of succinic acid to fumaric acid by succinic dehydrogenase, a.k.a. Complex II] The fungicide is strong on Botrytis, Sclerotinia, Alternaria and Monilinia. Phytotoxicity is low, as is its toxicity to beneficials and vertebrates. It is classed as a "Reduced Risk" fungicide by the USEPA. Boscalid can be combined with Kresoxim-methyl for powdery mildew control and resistance management. The fungicide can also be formulated with F500. Uptake by the plant is rapid; translocation is translaminar and acropetal.
Boscalid is being registered simultaneously in Canada and the USA on 70 crops in each country. Targeted registrations focus on, but are not limited to specialty crops. Crops include grapes (sour rot and botrytis), strawberries, beans, citrus, tomatoes (preventative for Alternaria), carrots, onions, sunflower, peanuts, turf (Sclerotinia), and canola (Sclerotinia).
For sclerotinia control, Lance is applied at 30 – 40% flowering. In most crops, it can be applied two to six times per season; no more than two sequential applications are recommended. Ronilan will not be withdrawn, although some uses will be discontinued. The Ronilan registration for canola will be maintained, in part because Lance is a good rotational product with Ronilan. Ornamental or greenhouse uses for Lance/Cabrio/F500/Headline will not be pursued; instead, BAS516, a mixture of two fungicides with different modes of action, will be targeted at these crops.

8.2. GUSTAFSON PARTNERSHIP

Presented by Jodi Sadlier. The Vitaflo 280 label has been revised, and now defines which specific fungi are controlled. The formulation of the product has also been adjusted to improve *Rhizobium* compatibility and cleanup. Prosper is now available as a ready-to-apply (RTA) formulation.

8.3. SYNGENTA

Presented by Garth Massie. Apron Maxx RTA is under review by PMRA. Product registrations are geared towards pulse crops, including beans, chickpeas, lentils, soy and peas. Active ingredients include metalaxyl-M for Oomycete control, and fludioxinil for broad-spectrum control.
Khalid Rashid indicated that downy mildew resistance to metalaxyl is increasing. Garth replied that no data on Apron is currently available. Bruce Gossen asked if Garth's data is based on natural inoculum. Garth replied that field scale data has been collected, but was not yet available at the time of the meeting.

9.0 REPORTS FROM GOVERNMENT AGENCIES

9.1. PMRA

Presented by Pierre Beauchamps.
Emergency registrations: Fenhexamid has been withdrawn. It was deemed that at Maximum Residue Limit was required; this is not possible under emergency registrations, but is required for minor use registrations. Thiophanate-methyl for use on mushrooms, to replace Benomyl, has been granted, despite initial concerns over high toxicity and residues – Pierre suggested that alternatives needed to be found, and that this product is probably not viable in the long term. Quadris on ginseng has also been added. Efficacy guidelines are under revision. For example, the definition of "Lowest Effective Rate" will be published soon. Several new documents have been published on the web site, all pertaining to temporary

registrations. With respect to URMULES, it is PMRA policy to crop-group whenever possible; this puts the minor use on the main label, rather than adding minor use labels afterward. When registering biologicals, the organism or strain counts are considered to be the active ingredient.

9.2. AAFRD AG-INFO CENTRE

Presented by Karla Bergstrom. AAFRD's Ag-Info Centre provides client access to department products, programs, services and people. Eighty percent of calls handled directly by Centre, the remainder are answered after consultation elsewhere. In a typical call, the AAFRD representative will discuss the problem, ask questions, and sometimes review submitted digital pictures or samples before providing recommendations. Afterwards, he or she will log the call and information in a searchable database, and sometimes conduct random client satisfaction surveys. The Centre does not conduct lab diagnostics, go on field visits, or answer non-commercial horticulture (i.e. home garden) questions.
In 2003, the centre received 11600 professional calls. This included 3500 calls on cereal, oilseed, pulses, or special crops, 2800 on forages, 2200 pertained to beef production, and 3100 were farm management calls. The Alberta fusarium head blight management plan was the dominant plant disease topic in 2002/2003. Many calls were complaints: callers felt the plan was either too aggressive, or too passive. Other questions related to seed testing and seed treatments. Powdery mildew in peas elicited 43 calls, mostly in the last week of July. Most calls were from the eastern half of Alberta. Tilt efficacy and concerns about feeding affected material were popular topics. Questions were referred to Kan-Fa Chang. Twenty-three calls, mostly from the Edmonton vicinity were received. Calls centered on the sclerotinia checklist, and uncertainty with respect to sclerotinia risk in view of the 2002 drought. Eighteen cereal leaf disease questions, mostly from Edmonton and east, were received. Yield loss estimation was a common theme. Fusarium wilt of canola was the subject of twelve calls in early August, mostly from Vegreville-Vermilion. Questions pertained to susceptibility of 45A55 and DS Roughrider. These calls were linked to ARC. Minor issues included rusts in winter and spring wheat, ergot in fall rye, and smuts. Questions in the area of commercial horticulture covered potatoes, rhubarb, echinacea, beans, garlic, cucumbers, aspen, sunflower (cut flower), and peas. Disorders and diseases included miscellaneous bacterial blights, miscellaneous bulb rots, seed decay/root rot/damping off, scab, sclerotinia, powdery mildew, red leaf, aster yellows, physiological disorders, and herbicide residue-related issues.

10:00 – 10:15 COFFEE BREAK

9.3. Canadian food Inspection Agency, British Columbia

Presented by Rob Ormrod.
Some overwintering of Chrysanthemum white rust (*Puccinia horiana*) has occurred. Discussions on deregulating this disease are underway with US authorities.
Eastern filbert blight has been identified at five locations near the Abbotsford airport, on the Canadian side of the border, in non-commercial orchards. The Canadian nursery industry would like to have access to new American cultivars, but the Canadian filbert industry would like to restrict the introduction and spread of the disease. Experience from Oregon has shown that the organism spreads at a rate of about 5 miles per year.
Ralstonia (bacterial wilt of geranium) race – 3 biovar occurs in the USA in cuttings imported from Kenya. One Canadian firm has been affected (in Saskatoon). Another route of introduction to Canada is from Guatemala to southern Ontario and Quebec. CFIA is monitoring geranium shipments from Guatemala, Costa Rica and Mexico.
There has been one interception of five rhododendron plants from a Vancouver-area nursery infected with Sudden Oak Death (*Phytophthora ramorum*, European strain). A total of 50 plants were destroyed, and 6532 samples were analyzed.

10.0 Disease Situation Reports and Guideline Updates

10.1. Cereals (Tekauz)

Overall, diseases were at much lower levels than normal, resulting in minimal or no yield losses. In Manitoba, most crops were seeded early. Available moisture decreased as the season progressed, resulting in reduced disease and reduced yields; quality of the harvested grain, however, was excellent. A field of AC Assiniboia oats was found to be severely infected with crown rust. The field was next to as stand of European buckthorn. A strategy for controlling this disease may be to eradicate the alternate host wherever possible. Wheat streak mosaic virus was severe in spring wheat, and has been increasing on an annual basis due to increasing acreages of winter wheat. Fusarium head blight was at the lowest levels in ten years, due to dry weather. A field with incidence of 7.2% was the highest found; this is approximately equal to the average incidence in most years. Diagnostic labs report that 100 of 177 samples were affected by abiotic problems, including herbicide damage, and leaf scorching from hot dry winds.
The situation was generally much the same in Saskatchewan. Seeding conditions were good. Problems with seed quality from the 2002 crop were not an issue, due to seed treatments and good germination conditions. As in Manitoba, conditions dried considerably as the season progressed. “Abiotic stress stacking” was observed (i.e. wind damage + slow breakdown of herbicides + etc. + etc.). Some stripe rust was observed, but was not severe. “Prematurity blight” was also seen. Little fungicide was applied in Saskatchewan. Surveys of fusarium head blight and leaf diseases in Saskatchewan were conducted. *Fusarium poae* was the most frequent Fusarium species; *F. graminearum* was identified in 1.4% of the samples. Leaf spot disease incidence was low, with tan spot being more frequent than septoria. *Septoria* nodorum is becoming a major component of the leaf spot complex. Lab reports indicate that abiotic stress symptoms were far more prevalent than biotic diseases.
Conditions were also dry in Alberta; the area north of Edmonton had better moisture than the rest of the province. Little disease was observed in the Peace, except for prematurity blight. Septoria leaf blotch, take-all and the first reported case of stripe rust in years were seen in the Edmonton area. The incidence

of common root rot was higher than usual in central Alberta. Prematurity blight was also observed. The spot form of net blotch appears to be increasing, and a case of Septoria leaf blight was found on barley. Take-all was severe in a few fields in the south, and there are some indications that stripe rust may have overwintered. Fusarium head blight symptoms were identified in 30 of 80 fields surveyed, but incidence in these fields was only about 0.4%. Some of the affected fields were irrigated. Species identification is not yet complete.

10.2. Forage Legumes (Hwang)

No report. Bruce Gossen indicated that the chapter update was submitted to Mardi before the WCPD meeting.

10.3. Grasses (Gossen)

Grasshoppers were the biggest problem, followed by drought stress. Disease levels were very low. The BCMAFF lab received 41 turfgrass samples, and only one forage grass sample. Phil Northover's work is the only example of research on grass diseases underway in western Canada.

10.4. Greenhouse Crops (Kharbanda)

Report presented by Vippen Joshi. No chrysanthemum white rust was found in 2003. Powdery mildew, downy mildew, and root root were common. Sporodex has been registered, but is not yet available. New diseases include the first report of powdery mildew of pepper, white smut of sunflower, a single case of crown canker of rose, and the first case of Pepino mosaic virus on tomato in BC and Alberta. Fusarium foot rot of pepper caused by *F. oxysporum* and *F. solani* was a problem in Alberta.

10.5. Mushrooms (Menzies)

Presented by Andy Tekauz. A request for an emergence label for Senator (Thiophanate-methyl) has been granted by PMRA for application to spawn grains only. Benomyl will no longer be available for use after 31 December, 2003. [see CFIA report].

12:05 – 13:00 Luncheon Break

10.6. Oilseeds (Kutcher)

Canola:
Excellent seeding conditions were followed by increasing drought. Delays in seeding occurred in some areas were the 2002 crop was still in the fields and had to be removed before seeding could begin. Issues with poor seed quality were often blamed for seedling emergence problems, but the true causes were more likely frost, herbicide injury, insect injury, wind damage and heat canker. There were also concerns that new insecticidal seed treatments (i.e. Gaucho and Helix) were less effective than lindane. It should be noted that the new actives require feeding, and that flea beetle pressure was very severe. Unusual symptoms (blasting of flowers and pods, loss of apical dominance, leaf deformities) started to appear in July. There was much discussion about residual herbicide injury, heavy insect feeding, or "fastidious prokaryotic agent", or stacking of these factors. In Manitoba, most disease levels were higher than in 2002, particularly sclerotinia, alternaria, and the prevalence of blackleg. In Saskatchewan, all disease incidences were very low. Relatively high moisture levels in some parts of Alberta's canola production areas led to relatively high sclerotinia stem rot incidences. Fusarium wilt was less severe than in 2002, although some severely affected fields were seen. Similar to some observations from Manitoba, severe blackleg was seen on cultivars that are normally resistant. A case of powdery mildew severe enough to

plug the radiator of a swather occurred in a field near Ft. Saskatchewan. Club root was detected in canola fields north of Edmonton.
Randy led a discussion on the PG system for classifying *Leptosphaeria maculans* (blackleg) isolates, and the implications of PG3 and PGT isolates identified this and previous years in western Canada. This was followed by details on the club root situation in Alberta, presented by Murray Hartman.

Flax:
Very good stand and vigour were observed in the majority of flax crops surveyed in Manitoba and Saskatchewan. Pasmo was the most prevalent disease. Fusarium wilt/root rot was observed in 30% of the crops, but severity was low. Severe aphid and grasshopper infestations were also observed.

Sunflower:
Most sunflower crops in Manitoba and south-eastern Saskatchewan were good to excellent for stand and vigour. Rust was the most prevalent disease, followed by Sclerotinia wilt, downy mildew, and Verticillium wilt.

10.7. ORNAMENTALS (JOSHI)

Black root of kinnickkinnik (*Thielaviopsis basicola*) occurred in BC. Black root can be transmitted in peat. Primicarb for control of downy mildew of roses is performing well in spray trials. Spray trials of Compas and Topas for powdery mildew of roses are underway. Narcissus white mold (first report) was detected in Vippen's lab in Abbotsford, as were root rot of bugleweed (*Phoma exigua*) and black root rot of some conifers.

10.10 TREES (LANGE)

Alberta
It was determined that the Provincial Dutch Elm Disease Prevention Program no longer fits within the new AAFRD mandate. There are no plans to have another government agency lead the program. DED is moving rapidly across Saskatchewan and has been found in Moose Jaw for the second year. Alberta elm trees are valued at 1.5 billion dollars.
Monitoring for the two vectors of Dutch elm disease (DED) *Ophiostoma ulmi* or *Ophiostoma nova ulmi*, the smaller European elm bark beetle (SEEBB) *Scolytus multistriatus* and the native elm bark beetle (NEBB) *Hylurgopinus rufibes* revealed 18 SEEBB-positive locations in Calgary, with a total of 30 beetles, and one SEEBB was found for the first time in Springbank. Up to July that the City of Edmonton found 13 SEEBB, St. Albert 10 and Strathcona County one. August and September traps still need to be inspected. No NEBB's were found in the Edmonton area.
Approximately 100 samples (majority of these are from Edmonton) from newly discovered wilted elms were submitted to the University of Alberta's Plant Pathology Lab. To date, results have turned out negative for the presence of DED. 105 samples were sent in 2002. Only one case of DED has been reported in Alberta. In 1998, a single elm tree in Wainwright was tested positive for DED, removed and burned.
British Columbia
Sudden Oak Death was discovered in BC. [See CFIA - BC report, above.]

Saskatchewan
New areas of DED infection included Melville and Caronport. Moose Jaw also had positive samples, after having their first positive case of DED in 2001 and no positive samples submitted last year. The disease continues to make its way west down the Qu'Appelle valley. DED is now very common at Buffalo Pound Provincial Park. Regina only lost one tree this year after loosing 15 last year. However, there continues to be more areas visited within the 15 km buffer surrounding the city, due to the increasing number of positive submissions. Saskatoon has managed to escape infection for yet another year. Lumsden continues to be severely affected by DED, with a total of 32 confirmed positive submissions.

In 2003, 91/288 samples received by the Crop Protection Laboratory tested positive for DED, a decrease probably due to surveillance, testing and removals, as well as significant losses of elm trees in endemic areas over the years. The number of calls on the DED hotline increased dramatically this year. One of the most difficult challenges faced by the program is public cooperation in the enforcement of The Dutch Elm Disease Control Regulations in The Pest Control Act. The public is usually eager to allow the surveillance crews to look at their elms, but on occasion property owners refuse access, creating large non-monitored areas and upsetting neighbours who have made the effort to protect their trees. New legislation that provides for better enforcement of the regulations is expected soon.

Manitoba
Overall disease on amenity trees seemed to be down this year in Manitoba. Stress from environmental conditions resulted in symptoms of poor growth, leaf yellowing and leaf scorch in many areas and were commonly reported in the city of Winnipeg. The City of Winnipeg reported a 27% decrease in the number of trees diagnosed with DED.
Bronze leaf disease, a poplar disease new to the Prairies, was confirmed in poplar shelterbelts near Carman. The disease has been confirmed only in the Carman and Graysville areas of Manitoba. This is the first report of this disease in Western Canada.

10.11 POTATOES (DAAYF)

Report presented by K. Rashid. In Manitoba, early blight was observed earlier than usual, but severity was low. Blackleg was observed frequently in the early part of the season. Early dying syndrome was frequent because of heat and moisture stress. There were no significant disease problems in Saskatchewan potato production fields. About ¼ of Alberta's processing potato acreage was surveyed for bacterial ring rot. None was found in the survey, although one positive bacterial ring rot sample was identified in Alberta in 2003. Early blight in Alberta was at low levels, and no late blight was observed. Seed piece decay occurred in some Alberta fields where emergence was delayed. Low levels of late blight were also seen in BC, but pythium leak was a problem. Growers were concerned about potato mop top virus, but none was found, even thought the vector (*Spongospora subterranea*) was found. There were no significant reports of white mold.

10.12 SPECIAL CROPS (PEARSE)

There was generally little disease on special crops. Little chickpea blight was reported, in part due to a sharp reduction in chickpea acres, and partly due to early harvest and fungicide applications. Anthracnose of bean decreased in Alberta in comparison to 2002. In field peas, pre-flowering cases of

powdery mildew were a concern, as were aphids. There were few disease issues in lentils, and crop quality was good, although yields were down. Some bleached plants due to root rot and stem breakage due to *F. avenaceum* and perhaps *F. oxysporum* were observed.

10.13 Fruit Crops (Northover)

British Columbia
Bacterial blight of blueberries may be coming systemic in BC. An unidentified virus seems to be causing blueberry fruit drop. Powdery mildew and another unidentified virus were problems for strawberry producers. BAS 516 is looking promising for control of raspberry spur blight. Brown rot was found on grapes.

Saskatchewan
Fireblight and rust were problems on saskatoons, little entomosporium was observed. A saskatoon-specific strain of fireblight seems to have emerged.

Manitoba
A generally dry season resulted in little plant disease. Common leaf spot was the most serious problem of strawberry.

10.14 Vegetables (Howard)

Report presented by Kelly Turkington. *Fusarium* spp. infections of asparagus, zucchini, and potato, and *Pythium* spp. infections of potato and rhubarb were problems. Alternaria leaf spots were a problem on bok choy and sui choy, as was bacterial soft rot of bok choy. A severe case of bacterial blight of swiss chard occurred near Edmonton. Bacterial blight of cabbage was severe in cultivars with pale leaves. Blossom end rot of tomato and pepper were observed in Saskatchewan. Many samples of fusarium basal plate rot of onion occurred in Manitoba. Other onion diseases included botrytis neck rot and black rot. Aster yellows of carrot incidence in Manitoba carrot fields ranged from 2 to 40%. Despite these reports, disease levels were relatively low in Manitoba vegetable crops.

10.15 Interioscapes (Hudgins)

No BC report. In Manitoba, four 30' *Ficus benjamina* were found to be infected with *Phomopsis* spp.

10.16 U.S.A. Plant Disease Updates

No report.

11.0 Other committee reports

11.1. Nomination Committee

Report of the Nomination Committee
Nominations listed below for the year 2003-2004:
Executive Committee:

Chair	*Khalid Rashid*
Vice-Chair	*Penny Pearse*

Secretary/Treasurer	Ralph Lange
Guidelines Editor	Mardi Desjardins & Tracy Shinners-Carnelley
Slide Set Editor	*Rhonda Kurtz*
Website Editor	*Ralph Lange* and *Dee Ann Benard*

Chapter Chairs/Alternates

Chapter	Chair	Alternate
Cereals	Andy Tekauz	Kelly Turkington
Forage legumes	Sheau-Fang Hwang	David Kaminski
Grasses	Bruce Gossen	Dee Ann Benard
Greenhouse	Prem Kharbanda	*Robert Spencer*
Mushrooms	Jim Menzies	Danny Rinker
Oilseeds	Randy Kutcher	Khalid Rashid
Ornamentals	Vippen Joshi	Vacant
Trees	Ralph Lange	*Karen Bedford*
Potatoes	*Fouad Daayf*	*Janice Elmhirst*
Special crops	*Penny Pearse*	*Debbie McLaren*
Fruits	*Phillip Northover*	*Peter Sholberg*
Vegetables	*Ron Howard*	*Kan-Fa Chang*
Interiorscapes	Elizabeth Hudgins	Sima Mpofu

Italics indicate new nominees.

Motion to accept reports (Khalid/Benard – Carried)

11.2. RESOLUTION COMMITTEE

11.2.1. RESOLUTION #1

The WCPD chair was requested to protest the decision by AAFRD to discontinue the Dutch Elm Disease control program (Gossen/Lange – Carried)

In the discussion that followed, Robin Morrall suggested that AAFRD is out of step with the rest of western Canada; for example, funding in Manitoba for DED control programs is increasing. Penny Pearse indicated that SAFRR, like AAFRD, also discontinued DED control work, as the disease is not considered to be an agricultural problem. In Saskatchewan, responsibility lies with the department of the environment. Kelly Turkington would like help in drafting the letter to AAFRD.

11.2.2. RESOLUTION #2

The WCPD extends its sincere thanks to the organizing committee for arranging an interesting and useful meeting in a spectacular venue, complete with pumpkin carving [??]
(Gossen/Kharbanda – Carried)

12.0 YEAR 2004 ANNUAL MEETING

The 2004 WCPD meeting will be held in conjunction with WFPM at a location in Saskatchewan. WCPD will defer to the WF organizing committee on choice of location and venue.

13.0 OTHER BUSINESS

13.1. SALARY FOR AAFRD PLANT PATHOLOGY POSITION

An announcement for an M.Sc. molecular pathology position with AAFRD listed the starting salary as $27 000 per annum. The participants in the discussion of this item felt that the low salary gave the impression that plant pathology is a poor career choice. It was moved that the chair send a letter of concern to AAFRD, after ascertaining that the advertised salary was not a typographical error. (Benard/Sharma – Carried)

14.0 SPECIAL TOPICS

14.1. OVERVIEW OF CLUBROOT DISEASE – JANICE ELMHIRST

Janice gave a detailed account of the experiences of BC vegetable growers with club root. The topic was especially timely in light of the discovery of club root in some Alberta canola crops. Topics covered by Janice included the biology of the pathogen, including races, host range, life cycle and environmental requirements, management methods, including a discussion on liming, and tolerance of cultivars to the disease.

14.2. BLUEBERRY SCORCH VIRUS (VIPPEN JOSHI)

The following abstract was provided by Vippen for the minutes:

Vippen Joshi for Wegener, L.A., and Z.K. Punja. *Department of Biological Sciences, Simon Fraser University, 8888 University Drive, Burnaby, BC V5A 1S6, Canada; (L.M., M.S.) British Columbia Ministry of Agriculture, Food and Fisheries, 1767 Angus Campbell Road, Abbotsford, BC V3G 2M3, Canada; and (R.R.M.) United States Department of Agriculture, Agricultural Research Service, Horticultural Crops Research Laboratory, 3420 NW Orchard Avenue, Corvallis, OR 97330, USA.*

Blueberry scorch virus (BlScV), genus *Carlavirus,* was detected in British Columbia, Canada in 2000 and is a serious threat to highbush blueberry production in B.C. The virus is transmitted by aphids, and has been spreading rapidly throughout commercial blueberry plantings in B.C. In 2000, a survey conducted by the B.C. Ministry of Agriculture identified 20 infected fields in British Columbia's Fraser Valley. A survey in 2002 detected BlScV in 77 fields in the Fraser Valley and 1 field on Vancouver Island. By Oct. 2003, scorch virus has been confirmed in more than 100 fields. To determine the pattern and rate of spread of BlScV, extensive sampling and mapping was conducted in five fields. Mapping data for 2001 and 2002 have revealed an annual rate of spread ranging from 2 to 6%. In the US, two different cultivar reactions have been observed suggesting at least 2 strains of BlScV exist. The complete genetic sequencing of one isolate (NJ-2 [1]) and partial sequencing of others support the existence of different strains. Survey data indicates there are at least 2 BlScV strains present in B.C. Several BlScV isolates have been selected from B.C. based on varying cultivar reactions and location for sequencing. Total viral RNA extraction was performed for each isolate. Each isolate was subjected to polymerase chain reaction (PCR) analysis using primers developed against a published NJ-2 [1] sequence.

These PCR products will be sequenced, aligned with the published NJ-2 sequence, and new primers will be developed within conserved regions of the BlScV genome. Genetic sequencing of BlScV isolates in B.C. is necessary to develop a PCR test for rapid and accurate detection of BlScV, and aid in understanding the diversity in blueberry scorch virus.

[1] Cavileer, T.D. et al. 1994. Journal of General Virology 75: 711-720.

14.3. AN OVERVIEW OF FUNGICIDE RESISTANCE AND MANAGEMENT STRATEGIES (PETER SHOLBERG)

Peter started his overview by reviewing the types of fungicide resistances that can arise, and the genetic basis of resistance loss. He then moved to a discussion of risk assessment of fungicides for resistance loss, and ended with the properties of various fungicide groups with respect to loss of pathogen resistance. Peter referred to a web site (http://www.frac.info) with detailed information on specific fungicide groups.

15.0 ADJOURNMENT

(Time of adjournment not recorded)