



INSIDER

The Official Newsletter of the Potato Association of America

Vol. 3, No. 6 November 1999

A Letter From Our President

The first portion of my term has been spent reviewing the status of the association and making sure all committees and sections are staffed and operating. I am happy to report that things are going well. But, as I worked through this process, I realized that PAA is currently a healthy mix of old and new. As for the old, we have retained the dedicated membership, the friendly relationships, the professional atmosphere, and the volunteerism that make this organization unique. As for the new, we have improved our image with a change in journal format, the institution of the newsletter, the creation of a web site, and the admission of many young professionals who are willing to serve. This is an exciting time to be a member of PAA.

I also realized that with all we have accomplished, there is much left to do to prepare us for the new millennium. Many important changes have already been initiated. I would like to give you some idea of our progress and my perception of the direction I see the organization taking in the next few years.

Progress with the web site continues. We are making plans to move the site server to Orono next spring. Lori Wing will become the web master and will do all editing and updating of the site. If things go as planned, it will be a comprehensive site with complete information about the association and the sections. It will contain all information and procedures to register as a member, register for the annual meeting, submit a paper for publication, submit an article for the newsletter, and possibly read some of the recent publications put out by the association. It will be a very comprehensive site. As we learn how to manage the site, it will

do more and be more attractive. Another item that is related to the web site is a proposed change in procedures for submission of abstracts. If we can complete preparations on time, we will allow (even encourage) submission via E-mail for the upcoming 2000 meeting.

We have made personnel changes that most of you are aware of. Lind Sanford has resigned as Editor-in-Chief and was replaced by Bud Platt. Lind will continue to serve until Bud completes a sabbatical next spring. Steve James replaced John Ojala as secretary of the association. Hugh Murphy resigned as technical editor. We have made arrangements for Barbara Harrity, a copy editor for the Maine Experiment Station, to serve as interim technical editor. If this arrangement works well for both Barbara and the association, we will make it permanent. This will require some changes in operating procedures, because Hugh did much more than simple technical editing. However, by shifting part of the load to the Editor-in-Chief and part to Lori Wing, we think we can make the change without any disruption in service to the members.

The updates and changes we have made in our publications is only the beginning of what I see as a series of progressive changes that could occur within the next few years. In considering past improvements, it became apparent that we have only scratched the surface. The Executive Committee will continue to review our publications over the next few years and will probably suggest additional improvements. We may wish to put both the journal and the newsletter on-line. It has also been suggested that we seek a partnership with one of the other professional societies

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Dates

December

Dec. 2-4: 18th Annual National Potato Council Seed Seminar at the Concourse Hotel, Madison, Wis., hosted by the Wisconsin Potato & Vegetable Growers Association. Contact Linda Gustafson, 715-623-7683.

January

Jan. 11-15: National Potato Council 51st Annual Meeting, Coronado Springs Resort, Orlando, Fla. NPC, 5690 DTC Blvd., Suite 230 E. Englewood, CO 80111. 303-773-9295

Jan. 19-20: 32nd Univ. of Idaho Potato Conference at Idaho State Univ, Pocatello, ID. 208-529-8376

February

Feb. 1-3: 39th Annual Washington State Potato Conference & Trade Fair, Big Bend Community College, Moses Lake, WA. Program contact: Bob Thornton: 509-335-2989; Show: 509-765-8845

Feb. 2-3: New Brunswick Potato Conference and Trade Show, Knights of Columbus Hall, Perth-Andover, NB. Contact the NB Potato Agency 506-276-1820.

Inside Information

Brad Geary Joins UI

Brad Geary was hired by the University of Idaho to fill the position as Potato/Onion Extension Specialist at the Parma Research and Extension Center. Brad is currently completing his PhD under the direction of Dennis Johnson at Washington State University. He is expected to complete his degree and join the faculty at the University of Idaho in December of this year.

Sorry, no pics

If you are wondering where the pictures from Somerset are, the simple answer is "where no one can see them". Yes, they were that bad. At least the ones I took were. I do have some nice shots taken by others, but no room in this newsletter for them. Also, all the pictures are digital and our printer says they won't look good. Maybe on the web site? Anyway, my recommendation is that we hire a photographer next year.

John Walsh

Changes coming

Starting with the January 2000 issue, the 'Insider' will become a quarterly. Publication dates will be: January 1, April 1, July 1, and October 1.

John Walsh

Letter from our president

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for printing our publications. The possibilities are endless.

We have a very aggressive process under way to increase membership in the association. We put the new vice-president, Joe Guenther, in charge of the membership efforts. This role for the vice-president will probably be made permanent if the association approves an applicable change in by-laws that will likely be proposed during this next year. Joe is currently working to staff two membership committees, one for sustaining membership, and one for general membership. Duane Preston and Ed Plissey are heading the sustaining membership effort. He is still looking for a chair for the general membership committee. I believe this is a critical effort with respect to the future of the association. If any member of the association feels they can contribute to this effort, especially as a regional or state membership representative, please give Joe or myself a call. Our phone numbers are in the directory.

We have one additional effort under way that I feel is very exciting. Ed Plissey is chairing a committee that has been commissioned to establish a foundation for the PAA. He is working to set this up through the University of Maine Foundation. If we get this operating as proposed, it will give us each one more avenue to contribute to the association,

and will give the association funds to accomplish things in the future that we have not dared attempt in the past. The foundation could be a source of funding for an endless list of exciting and useful projects.

It will be interesting, in a few years, to look back at this point in the history of the association and see the importance of what is now being done. I would like to invite all members of PAA to get involved in the process of taking the association into the future. If you simply want to express some ideas for improvement, contact Mary Powelson, the chair of our PAA 2000 committee. This committee has been assigned the task to bring a plan of future operations to the Executive Committee at the next meeting. If you want to be a little more involved, feel free to contact me, Oscar Gutbrod, Joe Guenther, a member of the Executive Committee, or the chair of any PAA committee and volunteer your services. We will not turn down your offer.

In closing, I would like to thank the many professionals who made PAA the organization what it is today. This marvelous association grew out of an idea and only works because countless professionals with interest in the potato turned it into a reality. We are making strides to prepare the association for the future, but are building on a solid foundation that was laid in the past.

Stephen L. Love
President, PAA

Graduate Student Abstract Instructions

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transformed with the glucose oxidase gene under the control of the Gelvin Super Promoter. Putative transgenic lines were verified and copy number determined via Southern blotting. Copy number ranged from 1 to 7. Lines containing the glucose oxidase transgene were evaluated for reaction to *P. infestans* in growth chambers and/or inoculated field studies.

results Results from both types of studies revealed no significant effect of the transgene in either susceptible or partially resistant cultivars. Lines for which tubers were available were tested for reaction to *Erwinia carotovora* (soft rot) and *Fusarium*

sambucinum (dry rot). All transgenic lines tested were significantly better than non-transgenic controls for lesion diameter and depth when inoculated with *E. carotovora*. Four transgenic lines (SGO-1, SGO-2, SGO-14, and SGO-26) and two transgenic lines (SGO-3, and SGO-26) were significantly better than the non-transgenic control for lesion diameter and depth respectively when inoculated with *F. sambucinum*.

conclusions Our results indicate that glucose oxidase will not be an effective component of a combined resistance strategy to develop late blight resistance in potatoes but may be useful in a similar strategy for developing soft rot resistance.

Alex Pavlista
Graduate Student Awards Chair

Graduate Student Abstract Instructions

As time is rapidly approaching for graduate students to submit their abstracts for the PAA2000 competition, I thought that an outline of what makes an excellent (10 score) Abstract was in order.

The Abstract should meet the basic requirement that someone reading it should be able to tell quickly the value of the report and whether to attend the presentation. Use the checklist below to ensure that your Abstract meets this requirement. The Abstract should:

- Strive for an impersonal, non-critical, and informative account.
- Give a clear, grammatically accurate, exact, and stylistically uniform treatment of the subject.
- Provide rationale or justification for the study. The statement should give a brief account of purpose, need, and significance.
- State the objectives of the study clearly.
- Give a brief but understandable account of the methods.
- Clarify whether this is a laboratory, greenhouse or field study.
- Identify scientific name of plants, other organisms, and chemicals.
- State results succinctly.
- Outline conclusions or recommendations. Emphasize the significance of the work, including new interpretations, evaluations or applications.
- Use specific figures to avoid general terms, especially with methods and results, such as stating rates and not just the number of rates used.
- Never cite references.

In essence, an Abstract is a miniaturized version of a paper; complete within itself. It should

include an introductory or rationale statement for the research project, an outline of the objectives or the specific reason for the project, a methods section that tells how the research was conducted, a results section, and a conclusion statement.

An Abstract should never contain a phrase directing people to the talk. Statements such as "will be discussed" or "will be explained" are worthless to people who are just reading the Abstract. Assume two basic premises: (1) the Abstract will be read by more people than will attend the presentation, and (2) nobody will attend without first reading the Abstract.

The basic rule-of-thumb is that everything important in the talk must be in the Abstract. Among the specific rules that flowed from this are:

- Plants, pests, and other organisms must be identified by their scientific names.
- Chemical compounds must be identified in the Abstract.
- An Abstract should never contain footnotes, tables, figures, citations.
- Obscure abbreviations and acronyms are inappropriate,

Abstracts should provide an informative account of the research project in impersonal, noncritical language. They should be specific; instead of saying that the results for the new technique were better than that of the old, say how much better with a measurable number or percentage.

Since the Abstract is your only chance to tell readers about your work, it is to your advantage to lavish your attention on it. The reason is completely practical; if the Abstract did not catch the readers' attention, they would never attend the presentation.

All will go well if you remember the essence of this article, which can be stated in a single rule-of-thumb: An Abstract must be complete within itself and important things in the paper must be repeated in the Abstract.

An excellent Abstract is given below with the authors' permission. Their Abstract is reproduced with its sections broken out and labeled. Observe its overall construction. Note that Mrs. Walters-Felcher was the winner of the PAA1999 graduate student competition and her Abstract received a 10 out of ten.

"Molecular Characterization And Disease Reaction Of Transgenic Potato Plants Carrying A Fungal Glucose Oxidase Gene." Kimberly Walters-Felcher, Wenbin Li and Dave Douches.

rationale Late blight, (Phytophthora infestans), is one of the most devastating diseases of potato worldwide and the development of cultivars resistant to this disease is an important objective for many potato breeders. Current emphasis is on utilization of horizontal resistance rather than vertical resistance conferred by specific R genes.

objectives Our research was undertaken to determine if enhanced resistance to late blight could be obtained by combining natural resistance and engineered resistance conferred by the fungal transgene glucose oxidase. This gene was selected due to its reported effect against multiple pathogens including *P. infestans*, *Erwinia carotovora*, *Alternaria solani*, and *Fusarium sambucinum*.

methods Late blight susceptible cultivars 'Atlantic', 'Snowden' and 'Spunta' and partially resistant cultivars 'Zarevo' and 'Libertas' were

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First Calls for PAA 2000

Nominations for Honorary Life Membership

One of the highlights of each annual meeting of PAA is the recognition of persons who have contributed to the betterment of the potato industry. This recognition is made by awarding Honorary Life Memberships (HLM) in The Potato Association of America. This is the highest award bestowed by PAA.

Members of PAA are encouraged to nominate candidates for Honorary Life Membership which will be awarded at the 2000 Annual Meeting in Colorado Springs, Colorado. Honorary Life Memberships are awarded to individuals who have made significant contributions to the potato industry and/or to The Potato Association of America. Contributions may be for activities related to research, extension/education, production, processing, marketing, utilization or any other facet of the potato industry.

Nominations must be submitted on the official HLM nomination form, which is available from the PAA Secretary.

Nomination information should include details of the nominee's education, career highlights, contributions to the potato industry and any participation in PAA. In addition, nomination information must include letters of recommendation from five supporters of the nominee. These letters must be submitted with the HLM Nomination Form. Supporters of the nominee may not be immediate associates of the individual. Selection of individuals for Honorary Life Membership will be made by the Honorary Life Membership Committee. This committee is composed of the PAA President, President Elect, Vice President, the PAA Directors and the two most recent, living Past Presidents. The immediate Past President serves as chairperson.

This is the FIRST CALL for Honorary Life Memberships. Completed HLM Nomination Forms (signed by the Nominator) and supporting letters must be

submitted, no later than March 15, 2000, to:

J. Creighton Miller, Jr.
Dept. of Horticultural Sciences
Texas A&M University
College Station, TX 77843-2133
Phone:(409) 845-3828
Fax:(409) 845-0627
e-mail: cmiller@taexgw.tamu.edu

Papers

This is the first call for papers to be presented at the 84th Annual Meeting of The Potato Association of America. This meeting will be held July 23-27, 2000 at the Sheraton Colorado Springs Hotel, Colorado Springs, Colorado.

The PAA invites papers dealing with all facets of the potato industry. Members may present papers either orally or as poster papers. Researchers, extension and industry persons are invited to participate. Graduate students are also encouraged to enter the Graduate Student Awards Competition (see following announcement for guidelines).

Authors are required to submit abstracts for papers they wish to present, either orally, as poster papers or in the Graduate Student Awards Competition. All abstracts must be submitted on the official PAA Abstract Form, two of which are found in this issue of the Insider. Additional Abstract Forms may be obtained from the PAA Secretary.

The Abstract Form will accommodate the title, by-line and a 200 word abstract if elite type is used. The abstract will be photocopied, as submitted, for duplication purposes. Thus, content and spelling accuracy are essential. There will be no opportunities for revision once the abstract has been accepted.

E-mail submission of abstracts is also encouraged. Follow the hardcopy format guidelines for e-mail submissions. Submit the attached abstract to steven.james@orst.edu and please list "PAA Abstract" as the e-mail subject.

The abstract should agree with the paper presented. The abstract should not be written until data collection, analyses and interpretation have been completed. The abstracts will be duplicated and distributed with the meeting program materials at registration. The abstracts for all papers (oral, poster and Graduate Student Competition) presented at the Annual Meeting will be published in a post-meeting issue of *The American Journal of Potato Research*. Abstracts of papers listed in the program, but not presented, will not be published in the *Journal*.

At the Annual Meeting, all oral paper presentations will be of a uniform 15-minute length. Authors should plan a 12 to 15-minute presentation with the balance of time devoted to questions. Overhead and 2x2 carousel slide projectors will be available. Computer projection equipment may also be available. Please contact the PAA Secretary if other equipment is needed. Appropriate display equipment will be provided for the poster papers.

The deadline for receiving abstracts is February 15, 2000. Abstracts received after February 15, 2000 will be returned because of the time required to organize the program for publication in the May-June issue of the *Journal*. The completed PAA Abstract Form (including those for Poster Papers and Graduate Student Awards Competition) should be mailed to:

Steve James
Central Oregon Agric. Research Ctr.
850 NW Dogwood Lane
Madras, OR 97741
Phone: (503) 475-7107
Fax: (503) 475-6390
e-mail: steven.james@orst.edu

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First calls for papers

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Graduate Student Competition Papers

This is the first call for papers to be entered in the Graduate Student Awards Competition to be held at the 84th Annual Meeting of The Potato Association of America. This meeting will be held July 23-27, 2000 at the Sheraton Colorado Springs Hotel, Colorado Springs, Colorado.

The purpose of the Graduate Student Awards Competition is to promote graduate student participation in The Potato Association of America through presentation of research papers at the Annual Meeting. Participants are also encouraged to submit manuscripts for publication in *The American Journal of Potato Research*.

General Information

1. The author must be a current (or recent) graduate student at the time

the abstracts are due (February 15, 2000).

2. First place winners from previous PAA meetings are not eligible to participate.
3. Research reported must have been done while a graduate student.
4. The paper must be orally presented. Poster papers and symposium presentations do not qualify for the Graduate Student Awards Competition.
5. The paper's title/abstract must be submitted to the PAA Secretary on the official PAA Abstract Form by February 15, 2000. Author must indicate discipline and that the paper is entered in the Graduate Student Awards competition (see call for papers).
6. Winners will be announced and honored at the Annual Banquet. Free banquet tickets will be provided by PAA for all graduate students participating in the Graduate Student Awards Competition.

General Criteria for Judging

Papers and presentations will be judged on the following basis.

1. Quality of research and content - 60%
2. Effectiveness of presentation - 40%

Awards

Five award will be presented in the amounts of \$350 for first place, \$250 for second place, \$100 for third place, \$100 for fourth place, \$100 for fifth place.

For more information, contact:

Dr. Alex Pavlista, Chairperson
PAA Graduate Student Awards
Competition
University of Nebraska
Panhandle R&E Center
4502 Avenue 1
Scotts Bluff, NE 69361 USA
Phone: (308) 632-1240

Marketing Round White Potatoes: A Mini-Workshop

A mini-workshop on marketing round white potatoes was held at The Potato Association of America Meeting in Somerset, New Jersey in August.

The workshop was scheduled to address the declining production of round white potatoes in the US. Short presentations were made by Joe Sieczka from Cornell University, who organized the workshop; Keith and Helen Masser, potato growers and packers; Chris Voight and Tim O'Connor from The Potato Board; and Steve Belyea, Maine Department of Agriculture. After the presenta-

tions there was considerable discussion on the highlights of the workshop which are presented below:

The image of round white potatoes needs to be elevated. That can be accomplished by consistent quality and size of the potatoes available to consumers. There needs to be more innovation to improve purchasing of potatoes.

Varieties grown for tablestock should be attractive and have good culinary quality. The need to identify the culinary quality of potatoes was also stressed. The best way to accomplish this is by variety identification. However, most packers are re-

sistant to variety labeling because of the number of round white varieties grown.

Another approach is to identify the culinary quality of groups of varieties. That is, identify varieties that have similar specific gravity. Low specific gravity varieties would be identified as excellent boilers to be used as whole potatoes in soups, potato salads and as moist bakers. Varieties with intermediate specific gravity could be identified as good for boiling and mashing and as slightly moist bakers. Varieties with high specific gravity would be sold as dry, mealy bakers

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1999 Annual Meeting Section Reports

Breeding&Genetics

The meeting was called to order at approximately 4:20 pm on Monday, August 2, 1999, by chair, Rich Novy. An attendance sheet was distributed, visitors introduced and announcements made. Following the addition of two items to the agenda, it was approved (motion: Steve Love, second: J. Creighton Miller, Jr.). Minutes from the 1998 section were approved (motion: John Helgeson, second: Steve Love).

John Bamberg gave the NRSP-6 report, mentioning that samples for tuber late blight reaction testing may be submitted to him for screening by Dr. Walt Stevenson via the crop germplasm committee. The focus is on germplasm, but advanced materials are also acceptable. John presented Joe Pavsek with a plaque, commemorating his service as the ARS Technical Representative to the IR-1 NRSP-6 committee for 18 years.

Rich Novy provided a short summary of the discussion concerning the National Potato Variety Trial. Two entries from each regional (NE, NC, W) trial may be submitted for evaluation.

The Variety Handbook update was presented by Steve Love. The committee has reached the conclusion that direction needs to be changed and that a book published about every 2-3 years, similar to those printed in Europe, would be more desirable. Susie Thompson will fill Steve's position, as he is stepping down to attend to other responsibilities (motion: Rich Novy, second: Christian Thill).

A discussion on the PVP office status and correspondence from Alan Atchley ensued. Steve Love provided the group with an update on distribution of advanced selections prior to commercial sale or release, in order to comply with PVP guidelines.

Recent changes in the USDA-ARS Potato Genetics and Enhancement Project were reviewed by Bob

Hanneman. The focus will change from 75 percent enhancement and 25 percent crossability efforts to vice versa.

Anna Hale provided an update on the North American Potato Variety Inventory and Breeding and Genetics Section websites. The URL is <http://potato.tamu.edu/variety/B&Gminutes.htm>. The abstract form will be on the site next year. About 1000 hits per month are recorded at the site. A round of applause was extended for all of the effort that Anna and Creighton have accomplished on this site.

Two items of new business were discussed. First, Steve Love suggested that the association, via the sections, attempt to put on workshops or mini-symposiums at the meetings. This may assist in obtaining more producer and industry participation. Up to three could take place per meeting.

Secondly, regarding the National Germplasm Enhancement Report, Christian Thill thanked Kathy Haynes for all of her efforts. The option of submitting NCR-84 reports was discussed.

Election of officers for 2000 took place. The vice chair and secretary were moved up the slate. Christian Thill was elected secretary (motion: Rich Novy, second: Craig Yencho).

New officers for 2000 are: Chair—Craig Yencho, Vice Chair—Susie Thompson; Secretary—Christian Thill.

The meeting was adjourned at 6:00 pm.

Respectfully submitted
Susie Thompson-Johns

Doug Johansen, North Dakota's Seed Commissioner, retired on June 30 and indicated he would be happy to forward letters and cards to Doug from anyone in the Section.

Hossien introduced Louise Laferriere from Agriculture and Agrifood Canada, who is substituting for Gaye LaPage, Canada's representative to the Certification Section. Louise indicated Gaye is on leave for several months.

Hossien reviewed the agenda for the meeting and asked for additional items. The following items were raised – germplasm release notices – handling new varieties, by Rob Davidson; Leafroll concerns for the northwest, by Oscar Gutbrod; hosting a symposium in 2001 with the Pathology Section and pictures of the activities of the Certification Section for the PAA web site, by Hossien El-Nashaar. Hossien indicated he would add these items to the agenda as time permits.

Hossien distributed copies of the minutes of the Section's winter meeting and reviewed the major topics discussed. Hossien called for a motion on the minutes. Oscar Gutbrod moved and Bill Campbell seconded that the minutes be approved as mailed. The motion carried unanimously.

Steve Poe, with the USDA's Animal and Plant Health Inspection Service (APHIS), updated the Section on discussions with Canada concerning modifying the management plan for the Necrotic Strain of Potato Virus Y (PVY-N). Steve indicated that after several years of testing second year seed lots in the field, the pathogen has not been found in the U.S. Louise Laferriere indicated no PVY-N has been found in similar testing in Canada. Growers in both countries have questioned the need for this testing in recent years in light of these results. Section members discussed potential problems with modifying the PVY-N Management Plan in the marketplace. Rob Davidson asked what would happen if a state or province finds a lot positive for PVY-N under

Certification

Section Chair Hossien El-Nashaar called the summer meeting of the Certification Section to order at 6:35 p.m. on Monday, August 2, 1999. Approximately 25 individuals attended, with representation from 8 certification agencies (which constituted a quorum). Hossien noted that

1999 Annual Meeting Section Reports

the revised management plan. Louise indicated the positive lot would be rejected, but no action would be taken on other lots on that farming operation. Terry Bourgoïn noted he received comments from Florida expressing concern about changes to the management plan, and suggested a stakeholders meeting be organized. Steve Poe agreed to send a letter detailing the proposed changes in the plan to all certification agencies and other stakeholders (such as plant regulatory officials from tobacco states) for comment. If no major concerns surface, APHIS will publish a notice in the federal register announcing the change in the management plan. Hossien indicated this issue will be discussed again at the Section's winter meeting.

The Section discussed Tobacco Rattle Virus, which is a quarantinable pathogen in both the U.S. and Canada. Louise Laferriere suggested that an ad hoc committee be formed to review the current knowledge of the pathogen and make recommendations to the Section on whether current regulatory approaches are appropriate. Louise suggested that representatives from tobacco states in which the pathogen is both present and absent serve on the committee. Several Section members agreed to serve on this committee, including Oscar Gutbrod, Rob Davidson, and Louise Laferriere. This group will contact other individuals to broaden its base, including a nematologist, and Louise will organize a conference call in the near future.

Oscar Gutbrod indicated he had been invited to represent the U.S. at a meeting of the United Nations Economic Commission for Europe (UN/ECE) in late September. The UN/ECE is working on developing a standard for seed potatoes and would like input from the U.S. Oscar indicated the National Potato Board offered some financial support for his attendance at the meeting of "rapporteurs". But could not cover the full cost. He also noted a second UN/ECE meeting will be held in

early 2000, to which he will be invited. He indicated he would like to have support from the Section, otherwise he will only be attending as a representative of the state of Oregon. Following this discussion, Steve Slack moved and Rob Davidson seconded that Oscar serve as the Section's representative at any UN/ECE meetings in the next 12 months, and that the Section provide some financial support, not to exceed \$500, for Oscar's attendance at these meetings. The motion carried unanimously.

Several Section members noted that the Pathology Section proposed that it meet jointly with the Certification Section this winter, prior to the North American Seed Seminar in Madison, Wisconsin, to discuss virus problems and how they are affecting seed stocks. Oscar Gutbrod moved and Bill Campbell seconded that the Certification Section meet jointly for a full day with the Pathology Section on December 2, 1999. The motion carried unanimously. The Certification Section also decided to hold a separate ½ day meeting prior to the joint meeting to follow up on a number of items discussed at last year's winter meeting and at this summer meeting.

Oscar Gutbrod distributed a copy of disease results from Washington State's seed lot trials and indicated the results demonstrate an increase in the level of Potato Leafroll Virus in imported seed. He noted this is a concern in the northwest. Rick Zink indicated it would be interesting to observe results of previous years' trials because of the cyclic nature of this disease.

Rick Zink notified the Section that the "U.S. Export Standards for Seed Potatoes" have officially been adopted by APHIS and placed in that agency's Export Certification manual. Section members asked Steve Poe how the manual can be obtained. Steve said he did not think the manual was on the web. He indicated it could be obtained from EXCERPT – APHIS's electronic database of exports require-

ments of other countries. Steve said each state Department of Agriculture's plant regulatory official could access EXCERPT and obtain a copy of the manual.

Rob Davidson discussed the certification of breeding lines that have not been released for general propagation. Rob noted that certification agencies should have a letter from the breeder or grower indicating that the agency is allowed to certify the lot, particularly if Plant Variety Protection (PVP) is pending. He noted that the agency could get in trouble, from a federal perspective, if it does not receive this permission. Oscar noted that PVP is here to stay, and breeders are just trying to protect their investments. Hossien raised several questions about this matter, such as, how can inspectors be expected to differentiate between different lines of a variety; and who has production rights to a variety. Terry Bourgoïn suggested this would be a good topic for the Section's winter meeting and agreed to contact speakers to discuss this matter.

Hossien El-Nashaar noted that the Certification and Pathology Sections are discussing joint sponsorship of the 2001 PAA Symposium. Pete Weingartner will organize the symposium. Topics to be covered include the relative importance of seed-borne vs. soil-borne inoculum of various diseases, and new or emerging disease problems.

There being no further business, Bill Campbell moved and Jennifer McBeath seconded that the meeting be adjourned. Motion carried unanimously. The meeting was adjourned at 8:20 p.m.

Officers:

Hossien M. El-Nashaar, Chair
Terry Bourgoing, Vice Chair
Bill Campbell, 1-year Director
Denis Kirkham, 2-year Director

Respectfully submitted,
Terry Bourgoïn, Acting Secretary

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1999 Annual Meeting Section Reports

Entomology

Members present: Andrew Jensen, Washington State Potato Commission; Ted Radcliffe, University of Minnesota; Jennifer Riebe, NatureMark Potatoes

Given the small attendance, the meeting focused on the election of new officers. Andrew Jensen was elected as Secretary. Jeff Wyman and Ted Radcliffe will remain as Vice-Chair and Chair, respectively, due to the section's lack of activity during the past year.

The timeliness of a symposium dealing with aphid transmitted viruses was discussed. It was proposed that the Entomology Section coordinate with the Pathology Section to arrange for a symposium at some point in the future.

Considering the small number of submitted papers this year in the Entomology Section, it was proposed that active Section members solicit paper submissions in Entomology for the next annual meeting of PAA.

Respectfully submitted,
Andrew Jensen, Secretary

Extension

Meeting called to order by Phil Nolte at 6:40 a.m., August 2. Members introduced themselves. Phil Nolte presented the minutes of the 1998 meeting. Minutes were previously sent electronically so everyone should have had an opportunity to read them in advance. Joe Guenther moved, Dan Hane seconded to accept the 1998 minutes. Motion passed.

Extnet Update. Al Mosley requested that everyone make sure that their e-mail address is correct. Al also requested that members check over the mailing list to see if there are people that need to be included on the list. Attachments do not work, so use copy and paste to send additional information. Al also cautioned to check who your mes-

sage is going to before you send it. This will avoid sending it to the world.

Journal and Electronic Publishing. Duane Preston discussed the cost and disposition of using CD ROM. Al Mosley discussed the PAA website and possibility of starting with the last 5 years and putting them on the website. Steve Johnson said that the development of CD ROM was not high on the priority list. You need 300 to sell at \$250.00 to break even. Alex Pavlista discussed disc submission of manuscripts and moving the journal on to the website. This is the way to eventually go. Bill Bohl noted that the Extension Journal is on the web. Steve James discussed the issue of free access to the journal versus having a password to control access. Bill Lamont mentioned that the American Society for Horticultural Science is moving toward electronic journals and offering members a menu of options from hardcopy, electronic, CD ROM or a combination. They are also discussing how to control access for individuals who may want to download a particular article.

Storage Disinfection Video. Phil Nolte noted that the aim was to produce a video on "Potato Storage Management and Disinfection" but ended up producing two videos, one on "Storage Disinfection" and one on "Potato Storage Management". Initial seed money that was contributed by companies was approximately \$15,000, of which only a small part was spent on the first video which will be available very soon. The first was relatively cheap to duplicate, only around \$5-8. The second video is in the works.

Potato Disease Compendium. Gary Franc noted that this publication was almost finished although the availability date is still not certain. The organization of the new compendium is different from the old one.

Bruise Bulletin. Bill Bohl said the bulletin "Preventing Potato Bruise Dam-

age", Bulletin # 725 is available from University of Idaho. For further information contact Bill Bohl.

National Anti-Bruise Committee Monies. Ed Plissey told the group that the money is being held at PAA. Dave Lambert will be heading up that group. May use some money on a video.

PAA Symposium Proposal for 2000 or 2001. The meetings will be held in Colorado in 2000 and Florida in 2001. Ed Plissey reported that the "Utilization and Marketing Section" has proposed one for 2000. Maybe consider one at 2001 or maybe we need to discuss changing the structure of the meeting.

County Faculty Committee Proposal. Phil Nolte proposed that county professionals should be included on Extnet.

Website. Al Mosely suggested the Extension Section should have a website that is linked to the PAA main site. Steve Johnson reported trying to put the Extension Publication letter on the PAA site but had a problem. This list should be on the Extension Section website. Al Mosely reported that there is consideration being given to moving the PAA website from Texas to Orono, Maine.

Extension Publications at Meeting. Alex Pavlista reported a problem of having extension publications on display at the meeting because they disappeared. It would be good to have a hot link between a list of extension publications and the site that produced them so they can be printed out. Steve James, new Secretary of PAA, said to make it so it can be searched for a particular topic.

Election of Officers. Al Mosley moved to nominate Nora Olsen, University of Idaho as Secretary. Rikki Sterrett seconded the nomination. Steve Johnson moved to close nomination which was seconded by Joe Guenther. Nora was unanimously approved by those present.

List of New Officers of the Extension Section for 1999-2000: Bill Bohl - Chair, University of Idaho; Bill Lamont

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- Vice-Chair, Penn State University; Nora Olsen - Secretary, University of Idaho

Representatives of each state gave a crop overview. In general the crop's looking good. Hot dry weather is a problem in some states. Some late blight reported. Potato Psyllids are a problem in some states.

Meeting adjourned at 8:20 a.m.

Respectfully submitted
William J. Lamont Jr

Pathology

The Plant Pathology Section of the PAA was called to order by Chair Bud Platt on August 2, 1999 with 37 attendees. The minutes from the 1998 meeting were approved as published. Richard Zink gave a Treasurer's report that indicated the section had a balance of \$1,172.83 as of the end of June. A brief discussion regarding dues and their use was held, after which the Treasurer's report was approved.

Gary Secor was asked to discuss the registration and use of chlorine dioxide. Gary indicated that the current registration had expired on June 30th with the full registration deferred for at least one more year because of residue concerns. Several states have again applied for a Section 18 on this chemical. A great deal of discussion regarding the efficacy of chlorine dioxide, its uses and its stability followed. Nora Olsen is writing a bulletin detailing how to use chlorine dioxide which will be available in the near future.

The APS Potato Compendium was discussed. The newest version will be completed within the next few months and should be available prior to the next growing season.

Under new business, Bud indicated that the Section must have Bylaws in place this year. An Ad-Hoc committee made up of Phil Nolte and Mary

Powelson will review the Bylaws from the other Sections and will try to have a reasonable version in place prior to the annual business meeting.

The PAA website was reviewed. Each Section has been asked to provide slides and text of activities which are pertinent to that Section and keep up this particular part of the website. Bud indicated that the Section will be soliciting information in the near future and members should be ready to respond.

A multi-Sectional symposium was discussed for the 2001 PAA meetings in Florida. The Pathology and Certification Sections will try to combine to sponsor this event. Pete Weingartner will be the lead in this effort. Topics will be related to the relative importance of seed borne vs. soil borne inoculum of several diseases. Also covered will be new or emerging diseases, the relationship between inoculum potential and disease symptoms and sustainable agriculture in relation to disease control.

Gary Secor discussed the pink rot survey that has been done for the last two years in North Dakota. He asked again for rotted tubers to be sent to his lab for analysis, including the state, location and suspected problem. He also discussed the relative use of Ridomil and resistance management in the pink rot population. This will become more important in the future.

The Section discussed the need for a winter meeting to be held in conjunction with the Certification and possibly the Entomology Sections during the NA Seed Seminar in Madison, WI in December. This will be brought up before the two Sections. Topics for discussion will include the vector transmitted virus diseases PVY and PLRV and the various strains that are now appearing world-wide. The meeting will take place on December 2nd.

The officers for 2000 were elected. They will be Chair, Jonathan Whitworth; Vice-Chair, Jeff Miller;

Treasurer, Richard Zink; and one year Director, Umadatt Singh.

The meeting was adjourned.

Respectfully submitted
Robert Davidson, Acting Secretary

Physiology

August 2: The meeting was called to order by Chair Joe Sowokinos with 18 members in attendance. Motion was made and seconded to accept the agenda. Minutes were approved following the correction of Mark Pritchler to Merv Pritchard as a member of the mini-workshop committee.

Old Business: Key items from the PM executive committee were reported by the Chair. The mini-workshop addressing management of pathogens in potato storage presented last year was discussed and committee was given the challenge of developing a mini-workshop on physiological factors in potato storage management for 2000 meeting.

New Business: Following tradition, Vice Chair Susie Thompson and Secretary Rikki Sterrett moved up the slate of officers. Nominations from the floor led to unanimous election of Alan Langille for Secretary and Yves Laclere for a two-year term as Director. Mark Pavék will continue to serve as Director for one more year.

Slides and supporting materials for the Physiology Section web site were requested from section members. This material should be forwarded to the web master.

Responses to the physiology research survey distributed electronically by Joe Sowokinos prior to these meetings were discussed. This led to the passing of a motion to sponsor a symposium in Florida in 2001. The symposium will address tuberization and dormancy, with specific topics and speakers to be final-

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ized by the committee of Elmer Ewing (chair), Ed Lulai, and Joe Sowokinos.

The efforts of John Walsh as editor and contributor of *The Insider* were recognized. Members were encouraged to increase their participation in the newsletter.

Motion was made and seconded to adjourn at 7:35 p.m.

Respectfully submitted
Rikki Sterrett

Production & Management

August 3, 1999: Call to Order. The meeting was called to order at 6:45 am by Kiran Shetty. An announcement was made about airport transportation arrangements. A new agenda item (Extnet) was added by Bill Bohl.

Approval of 1998 Meeting Minutes - Motion made, seconded, passed.

Old Business:

Nutrition Publication - Nora Olsen. The text for this has been completed and Dale Westermann has it and is ready to move forward. The color plates are still incomplete. Slides and pictures for this have been handled to date by Ron Voss, who is currently on sabbatical leave. Carl Rosen will proceed with either ensuring Ron moves these forward or getting the materials from Ron and finalizing the material for the publication.

Report on the 1998 Symposium - Larry Hiller. To date only 2 manuscripts have been received. The final deadline for manuscripts is September 1, 1999, when they will go as a group submission to the Journal.

Additional Business:

Potato Volunteer Management - Bob Thornton and George Newberry. Bob reported on findings on this important topic. Surveys of tubers left in the field indicate that these are very small pota-

atoes which, if harvested, would result in penalties for growers delivering them. Several approaches to management are being studied including tillage practices and the use of the sprout inhibitor MH-30 for control. It appears that the residue of MH-30 on the small tubers is of too low a concentration to be effective.

Research Priorities for 2000 and Beyond - Kiran Shetty. Suggestions for research priorities should come from the Production and Management Section. Members are asked to submit suggestions to Kiran or to incoming President Greg Porter.

A videotape on storage is an example of a research/action item from the section which has been completed. The videotape is available - interested parties should contact Mike Lewis.

Extnet - Bill Bohl. This is an extension network run by Al Mosley - contact him if you are interested in signing up. No attachments, please, and users are reminded that messages/replies are not individual but will be distributed to everyone on the list.

Elections. Gale Harding was elected Secretary. Dan Hane was elected as the Director (two year term).

A Section Website is needed. A motion was passed, seconded and carried that the new Director be responsible for developing the Website.

Meeting adjourned - 7:30 AM.

Respectfully Submitted,
Joan R. Davenport August 3, 1999

Utilization

August 2, 1999: The meeting was called to order by Ed Plissey, Chair at 6:35 PM. Welcome greetings were presented by Chair followed by self-introduction of those present in the room. A short history of the utilization and marketing section was presented by Ed Plissey.

Secretary report - no report was presented by secretary. The 1998 utilization and marketing minutes were discussed. A motion was made and passed to accept the 1998 minutes in the form presented.

Committee Reports:

Bret Nedrow - Chair of steering committee for the PAA 2000 meeting discussed ideas for next year's annual symposium.

Five topics were offered with names of possible speakers. Topics include:

- Update on potato nutrition/Olestra,
- The NPPB update
- GMO acceptance
- Globalization of processing
- Pre-cut pre-peel product

A short discussion on the floor followed the topic presentation. Next year's symposium may interest a wide range of industry people and make next year's symposium a very successful event. A motion was made and approved to organize the annual symposium in year 2000 under the guidance of the steering committee including the topics discussed. The symposium proposal will be presented to executive committee for consideration. The section will seek financial assistance from the executive committee. Bret Nedrow, symposium committee chair, will make a presentation.

Joe Guenther - Chair of the nomination committee, reported the following nominations: Dr. Al Bushway - Section chair; Marcin I. Topolewski - Vice-chair; Bret A. Nedrow - Secretary; Dr. Joe F. Guenther - Section Editor

No other nominations from the floor were introduced. The list of section officers was approved as presented.

New Business:

Dr. Ed Plissey proposed that Dr. Al

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Which Way Are We Slicing the Spud?: A Proposal

There are problems in talking and reading about experiments carried out on parts of potato tubers, whether it is descriptive of structures and shapes, or chemistry, or those sophisticated measurements of stress and strain taken on slices and cores for engineering purposes. And it is important to be quite clear what we are talking about because the tuber is exceedingly anisotropic; it contains lots of structure.

A similar problem came up once before in the early part of the 20th century; how to describe the direction of spiralling of plant growth, including the arrangement of the eyes along the tuber. There were two opposed schools of thought, finally resolved by the realization that engineers had solved this one by reference to left-hand and right-hand screw threads. One wishes that everything could be solved so easily by an arbitrary definition.

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Bushway take the responsibility of being moderator for next year's annual symposium.

Section dues were discussed, but at this time the section members did not feel they were needed. There was no interest in establishing a dues structure.

The chair introduced invited speakers. The presentations included Tim O'Connor - CEO of the NPPB and Chris Voight - the NPPB field manager who made the presentation "New marketing Directions at the Potato Board"

Dr. Joe Guenther presented a report on "The Potato Industry in Argentina"

The meeting was adjourned at 7:30 pm. and was followed by the mini-symposium on round white potatoes.

The polymath philosopher Descartes gave us a solution to our present difficulty of definition. The main dimensions of a tuber can be expressed in Cartesian coordinates, with realization of the theoretical relationship of the position of the tuber relative to the remainder of the plant and to the horizontal plane of the earth's surface. Consider that the main stem of the plant is vertical to ground level because it is negatively geotropic. The stolon grows horizontally from the main stem, being neutrally geotropic so long as it cannot see the light and is otherwise uninfluenced.

The tuber is initiated at the terminal end of the stolon and grows as an enlargement of the stolon structure. There is thus a principal axis of the tuber between its stem end and its bud end that I propose should be referred to as the X-axis. This axis lies about horizontally in the ground and its length is generally but not always, the longest dimension of the tuber.

The Y-axis will then lie approximately horizontal in the ground, tangential to a circle having the junction of the stolon and the main stem as its centre and lying in a horizontal plane. The Y-axis thus passes along the maximum width of the tuber and is generally intermediate in magnitude of the three linear dimensions.

The Z-axis, the maximum thickness of the tuber, will lie approximately vertical in the soil and for most tubers will intersect the X- and the Y-axes, though not at the same point because growth is not symmetrical in a vertical sense. That is, vertical growth along the Z-axis will have been greater upwards above the X-axis than it will have been downwards below the X-axis.

Thus the X-axis has direction relative to the plant and the Z-axis has direction up or down relative to the earth (gravity). Only the Y-axis does not have

direction of major importance. Hence the only legitimate subsample of a potato tuber is obtained by slicing in the X-Z plane passing through the midpoint of the Y-axis, giving two equal halves. These could, of course, be identified as left and right halves.

Generally, dimension X (length) is greater than dimension Y (width) is greater than dimension Z (thickness), but this is not always so. Some cultivars tend to have length (X) shorter than width (Y), and a very few others with a tendency for thickness (Z) to be greater than width (Y). The axes can usually be identified by reference to the stem end, the apical bud and by the shapes and directions of the eyes. There can be additional problems defining dimension because of overgrowth at one or both ends of the tuber.

The axes and dimensions thus defined in terms of the growth of the plant have functional and anatomical meaning. They are not necessarily the same as those defined by considering the axes of longest, shortest and intermediate overall dimensions as length, depth and breadth respectively. Planes of slicing can be identified as pairs of axes and directions of coring identified as single axes, in the conventions commonly used by engineers.

By this time I should have made a case that it is not sufficient to state that "the tubers were sliced parallel to the long axis" or "tubers were divided into two halves along the center plane" or "tubers were cut in half longitudinally and cylinders bored through the centers of the half tubers perpendicular to the long axis". There is much more I could have said but that should be enough to start discussion. Let us adopt a standard nomenclature for adding certainty to our descriptions of "method".

Dr. Peter Meredith
Illam Potato Sciences, New Zealand

PAA Background

PAA Executive:

President:
Steve Love

President-Elect
Oscar Gutbrod

Vice President:
Joe Guenther

Secretary:
Steve James

Treasurer:
Dave Lambert

Past-President:
Creighton Miller

Directors:
Larry Hiller
Tom Owings
Bud Platt
Greg Porter
Rikki Sterrett

Editor-in-Chief:
Bud Platt

Technical Editor:
Barbara Harrity (Interim)

Business Editor:
Ron Knight

Annual Meeting:
July 23-27, 2000
Colorado Springs, CO

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Position Announcements

Opportunities in Potato Research Organization: Frito-Lay, the world's leader in salty snacks, has openings for three senior positions within its potato agricultural research group in Rhinelander, Wisconsin. The mission of this group is to create and develop proprietary potato varieties and provide grower support to assure the delivery of high quality chipping potatoes. Qualifications for these positions include a Ph.D. in horticulture, agronomy, plant pathology, plant physiology, or a closely related science discipline. At least five years experience in applied potato research is desirable. These positions involve considerable interaction with growers and industry people throughout the U.S. and other regions of the world.

Potato Agronomist. This individual will be responsible for developing and implementing best practices on Company research farms and growers farms, particularly as related to the development and deployment of new varieties. The successful candidate should have demonstrated competencies in experimental design, data analysis, and the interpretation and implementation of results. Excellent communication skills are essential to this position.

Potato Storage Specialist. This individual will be accountable for developing optimal storage regimes for new varieties in

the course of their development and deployment as well as improving storage practices to optimize quality of existing varieties. The successful candidate should have in-depth knowledge of potato storage systems and controls. The ability to solve problems related to post-harvest physiology and/or pathology through proper management of storage systems is essential.

Potato Seed Production Specialist. This person will be responsible for improving all phases of potato seed production, from potato tissue culture in the laboratory to production of certified seed in the field. The candidate should have experience in all stages of potato seed production and be prepared to develop, recommend, and/or implement practices to improve productivity and maintain high phytosanitary standards.

Frito-Lay offers a highly competitive salary and benefits package commensurate with education and experience.

Please submit resume, and names of five references to: Agricultural Research Position, 4295 Tenderfoot Road, Rhinelander, WI 54501. Website: <http://www.fritolay.com/>

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Marketing Round White Potatoes
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and suitable to frying. There may even be a need to identify varieties that have dry baking consistency and that they are not suitable for boiling.

Size of the potatoes should be consistent in the package. Many stores require a 2 1/4" minimum. Growers have difficulty in selling 2 - 2 1/4" potatoes. One approach is to package potatoes in small (2 - 2 1/2"), medium (2 1/2 - 3 1/4"), and large sizes (3 1/4 - 4"). A demand for each of those categories should be developed. Some investigation into the use of potatoes between 2 and 2 1/4" institutional use should also be pursued.

Product consistency and quality was also discussed. Many growers in the eastern production areas do not have sophisticated sizing equipment and/or packaging equipment that make packs consistent from one producer to another. Centralized packing and/or cooperative packing with more strict standards would help in improving the image of the round white potatoes

In closing, the mini-workshop proved to be an excellent forum for discussing an issue vital to the survival and prosperity of the potato industry.

Joseph B. Siczka
Associate Professor/Coordinator
Cornell University Riverhead, NY 11901

