

**Washington State Commission
On
Pesticide Registration**

January 4 and 5, 2005

University of Oregon, Portland Center

Portland, Oregon

Proposed Minutes

Kurt Volker, Chair

Present: Art Losey, Bob Berger, Ann George, Andy Jensen,
Chuck Masters, Jay Schafer, Ben Barstow, Bryan Sakuma, Dan Robinson, Jeff Sample, Byron
Phillips

Non-voting Members: Stefan Dobratz, Bill Mason, Ted Maxwell, Doug Walsh

Guests: Sandra Ristow, Gabrielle Toutonghi

Administrative staff: Alan Schreiber, Laurie Wishkoski

Call to Order

Introductions/Public Comments/ Minutes

The meeting was called to order at 10:00 am. Chair Kurt Volker welcomed the commissioners and guests.

Introductions were called for. Stefan Dobratz, representing Washington State Department of Labor and Industries, announced that he would be leaving the Commission and introduced Gabrielle Toutonghi who would now represent L & I on the Commission after this meeting. Kurt Volker recognized and welcomed the new commissioners, Jeff Sample and Byron Phillips.

Public comments were called for but there were none.

Chair Volker handed out a page that had been omitted from the minutes and requested that the approval of the minutes be delayed until the end of the day. An amended budget for the red raspberry proposal 05AN026 was also handed out.

The financial reports were handed out. Alan Schreiber explained the expenditures that had been made since the last meeting. There had been very little outflow since the last meeting.

Ann George moved that the disbursements be approved as presented. Bob Berger seconded the motion. The motion passed unanimously.

Alan Schreiber went on to explain that the Washington State Commission on Pesticide Registration had approximately \$400,000 that was unspent and unencumbered. Alan Schreiber continued for the benefit of the new members that, due to the nature of research, funds were often not spent in the year that they were allocated. Researchers often operated under the constraints of the seasons so expenditures were made accordingly. It is also possible to forward allocate funds and Washington State University encouraged forward allocation. Alan Schreiber and Kurt Volker both stressed that although it was technically possible to fund all the proposals, it was the responsibility of the Commission to fund only proposals that the commissioners deemed meritorious. It is possible to issue another Request for Proposals (RFP) if there are not enough proposals that are funded. It is the responsibility of this Commission to make sure that the funds are utilized appropriately and that they are utilized for the benefit of agriculture in Washington State. Bob Berger added, for clarification, that the funding was for the benefit of agriculture and the furtherance of pest management.

Alan Schreiber presented the Administrator's report. If the March or May meeting is not devoted to hearing proposals, it is possible that the Washington State Department of Agriculture would come in and make a presentation about their Surface Water Pesticide Monitoring Program as it relates to endangered species. Alan Schreiber reminded the commissioners that elections would be held at this meeting. Information was also given about the procedure to be followed in order to receive ten pesticide credits. It would be necessary to make a decision on whether or not to support The Tour again this year. If tradition is followed, The Tour would take place on the West Side of the state this year.

Bob Berger moved that the Commission proceed towards the annual field tour in Western Washington in July of 2005. Andy Jensen seconded the motion. The motion was approved unanimously.

Alan Schreiber continued with the Administrator's report. Bob Berger's term has expired but he is willing to serve again. There is discussion going on with the Governor's office regarding term limits and its application in this instance.

Alan Schreiber reminds the commissioners of the dates of the upcoming meetings and their locations. There is also a reminder that there is a possibility that some of the funding that has been allocated has not been spent. Researchers that have not fully utilized their accounts will be notified that they have ninety days to do so. The commissioners would be updated as soon as information becomes available.

Kurt Volker agreed that the WSDA Surface Water Monitoring Program would be a very interesting topic for the next meeting. He reminded the commissioners that suggestions about possible presentations for upcoming meetings would be welcomed. The Department of

Agriculture has spent a great deal of time developing an Endangered Species Plan. The draft plan is available for review and Kurt Volker encouraged the commissioners or anyone interested to review the document. It is available online. Discussion followed on the need for clarity, transparency and proper procedure when decisions are made especially regarding funding issues.

Proposal presentations began at 10:32 am.

05AN026 Craig McConnell *Survey for Phytophthora fragariae var. rubi in pre-plant stocks and planted root samples of red raspberry in Washington State*

There is no definitive diagnostic tool for diagnosing root rot, a top tier problem, in red raspberries that is available to the red raspberry industry in the Northwest. At this time it is not known whether this organism is present or to what degree of severity in the Northwest. At this time there is only wide spread prophylactic use of fungicides. There is great risk for misuse of chemicals and at the same time there is great risk of wide spread infection if the organism is present and not treated. New scientific testing is available. Sudden Oak Death concerns have prompted advances in diagnostic tools. Growers would be given appropriate sampling protocols and anonymous samples then given to the Red Raspberry Commission. Growers will share the testing costs. ELISA will only test to the genus level. PCR will be used to make a species specific diagnosis. Results would be posted on WSU website (identified by grower code not name) so the growers would not know who had a positive test but would be able to see overall industry detections.

Bob Berger asked where the money from the growers was represented in the budget. It was not represented in the budget, only the public funds were represented. Art Losey commented that the money from the growers that would offset one half of the testing costs could be considered in-kind donations. Bryan Sakuma confirmed that this is a real problem for red raspberry growers and it would be a significant advance to be able to test to genus level, also, protocols needed to be set. Art Losey asked how ELISA was going to be used, would a negative result with ELISA still be PCR tested. The reply was that ELISA would be used for comparison. Andy Jensen asked if there could be other causes of root rot in red raspberry. Some estimates are as high as 80% of red raspberry root rot is actually caused by non-phytophthora organisms. Chuck Masters asked why PCR would be used if ELISA doesn't show positive. The goal is to change behavior as well as to significantly add scientific information. Kurt Volker asked if the ELISA test wasn't adding a great deal to the overall costs. The answer was that the ELISA test was very inexpensive. Kurt Volker went on to ask whether a large amount of positives would create or could create a quarantine situation for Whatcom County. Kurt Volker also wanted to know if there was a way that information could be traced back to the individual grower. The survey was designed so that it could not be done. The Freedom of Information Act could be difficult when working for a public institution and dealing with private enterprise.

05AN019 Dave Horton *Wireworm field studies in potatoes: I. Baiting to predict tuber damage; II. Screening of resistant potato varieties; III. Describing wireworm depth I the soil profile*

The wireworm is the larvae of the click beetle. The work will involve baited plots with baiting being done in both the fall and in the spring. Another part of the project will involve variety screening in coordination with Idaho and Virginia to ascertain the degree of resistance or susceptibility to wireworm. A third part involves trying to understand the variables involved in

inconsistent results from fumigation. It is important to know where the wireworms are distributed in the soil profile, how moisture and temperature affect that distribution. Alan Schreiber asks what the mechanism is that would make the potato resistant to wireworm. That is something that the breeder is going to look at. It could have to do with the amount of glycol alkaloids or how soft the skin is. Chuck Masters asked what percentage of the budget would be spent on screening. One fourth of the budget, approximately, would be spent on screening. Art Losey inquired about the method used with posthole digger. Dan Robinson asked about the benefits of tracking the population. It will aid in application efficiency. False negatives from the lower end are a concern.

05AN056 Dave Horton *Patterns of egg laying by western flower thrips among vegetative, flowering, and fruiting structures in apples*

The egg laying activities of the female western flower thrips coincide with bloom time in apples but the exact timing is unknown. The female inserts her ovipositor into the apple fruitlet which causes a light discoloration which increases in size as the apple grows. Problems have arisen with timing of pesticide applications and issues of residual (or lack of it) and harm to pollinators. It is important to know the actual timing of egg laying. Collaboration will be done with Betsy Beers. Egg staining techniques will be employed. Byron Phillips asked why the study was beginning at half inch green. The answer was in order to be able to publish the work it was important to have the full spectrum of data. Sampling will be done from pink to petalfall with a broad enough array of samplings to identify environmental influxes of thrips. Ben Barstow asked about the environmental conditions affecting thrips. Thrips like tight spaces. Monitoring of temperature and humidity will be done at both Wapato and Wenatchee sites. Andy Jensen asked whether or not pansy spot was diagnostic for thrips. The answer was affirmative and evaluation would be done with a hand lens. Jeff Sample commented that this issue was of general concern. Bob Berger questioned the allotment of benefits on the proposal.

05AN023 Tom Peerbolt *Pest Management Strategies in Red Raspberries*

This is an ongoing project. This is the sixth year that application has been made for funding from this Commission. WSU is making a transition from the Vancouver station to the Mt. Vernon station. There are no new plantings at the Vancouver station, basically the Vancouver station is going away. The most likely event is that the harvester will be moved to the Mt. Vernon station. The beginning of this project was in the year 2000 with WSU coming up with the down payment and finance charges and WSCPR agreeing to one year's funding request and the stipulation that a request would have to be made every year with no guarantee of approval. Alan Schreiber asked for information about the projects with which the harvester has been associated. The harvester has been used with the breeding program, testing for harvesting abilities, and for a root rot research program. Originally there were ten acres of raspberries for research and the harvest of those by the harvester helped to offset the cost. The harvester is used by Pete Bristow, Carol Miles and Lynell Tanagoshi. Kurt Volker asked about the condition of the harvester. It is in good shape but there were no assurances that it was under cover as had been requested at the time of a visit by the commissioners. Kurt Volker asked for clarification as to how the harvester was contributing to reduced fungicide use and reduced risk to the groundwater. Kurt Volker also commented that the last time that the budget had been reviewed was in 2002. Bob Berger asked for clarification of budget figures. The presenter offers to

withdraw the proposal at this time and resubmit at the March meeting with a more accurate proposal.

05AN024 Carrie Foss presented by Corey Chantry *Exploration for Creation of a Structural Pest Inspection Demonstration Laboratory*

There is a great need for better education of structural pest inspectors. This group is a relatively small percentage of pesticide applicators but they produce a disproportionate amount of claims and problems for the Department of Agriculture. Although education and seminars are being provided and taken advantage of, there is a limit as to the amount of useful knowledge that can be gained from books and pictures. The structural pest inspectors need a hands-on environment, a real world situation in which to hone diagnostic or application skills. No such structure exists in the western United States. Current pesticide strategies, IPM practices and effective diagnostic procedures could be demonstrated in such a structure. Better education will result in fewer complaints for improper applications or identifications. After construction, the structure will become immediately self-sufficient. Art Losey asked for more information as to how education about termites would take place. Damaged timbers would be brought in to see. Samples of different types of termites and their frass would be appropriately placed within the structure. The object would be to cause students to have to gain access in a manner appropriate to a real-life situation with this particular pest. Art Losey also stressed that there was a great deal of in-kind donations that were not represented on the proposal. There has been, and will continue to be, a tremendous amount of volunteerism for this project. Kurt Volker asked if all structural pest education would now take place only in Puyallup and not in other parts of the state. The seminars that are currently taking place around the state would continue. This training would take place in conjunction with the training already in place. Ben Barstow asked if fire fighting training facilities or structures could in any way be used rather than building a separate structure. He also asked what the plan was to deal with obsolete construction techniques. Examples of obsolete construction would be brought into the structure on an as needed basis. Alan Schreiber asked for clarification of the funding and in-kind sources. Andy Jensen also commented that source and breakdown of funds is important information for the commissioners to have. Bob Berger voiced concern that the title of the project did not accurately reflect the proposal that was presented. Ann George added that the budget breakdown was on the back of the budget page.

05PN059 Lynell Tanigoshi *Evaluation of Novel Insecticides for the Economic Control of Root Weevils and Blueberry Aphids in Blueberry*

The emphasis is working with blueberry as a non-bearing crop. Work is being done to compile the data that has been generated and collected to go through the IR4 process and to add to the national blueberry data base. Plants are brought in and may sit for a year to a year and a half in a container before a crop is picked. Work is being done with both a root drench and also a granular formulation. Aphicides are very specific. It is known that the aphids are a vector for blueberry scorch. Ben Barstow asked for more information about solenoid use with injections. The solenoids are used to regulate the applications to make precision applications during basal root sprays to affect environmental savings. Work is also being done with nurseries to make granular applications to root balls. Andy Jensen asked what type of aphid was the vector of blueberry scorch. There is a blueberry aphid complex and also the ubiquitous green peach aphid that attacks blueberry.

Lunch

05PN027 Phil Hamm *Understanding and controlling diseases of peas and lima beans*

The work being done is with white mold and nematodes. Mike Shelby, Executive Director of the Western Washington Agricultural Association, spoke on behalf of this proposal. He is also Executive Secretary of the Oregon Washington Pea Growers Association. Nematodes were a huge problem this last year causing losses of \$300/acre. Peas are a low margin crop but an important part of crop rotations. Proposal involves continuing to look at white mold and to also to identify the type of nematode that is causing the damage to this industry. There is an effective product called Vydate that is effective in onions. There is a belief that a Section 3 could be easily obtained due to the fact that a great deal of data established on other crops. All that remains is efficacy work. Enough residue information exists that a Section 18 could be applied for. Byron Phillips asked if the nematodes were suspected of vectoring the sclerotinia. There is no suspected relationship. The reason that the two projects are together in this proposal is merely for convenience and for the fact that both will be done on the same crops. The budget is not split evenly between the two projects. The white mold will take 60% and the nematodes will take 40%. Alan Schreiber asked what the cost was of a Vydate nematode program. The cost of a pea nematode program would vary greatly from a potato program. Potatoes are in the ground for an entire season. Peas, on the other hand, have a very short cycle. One or two applications would be enough to be effective unless there is a very heavy infestation. Ann George asked for the common names of the chemicals being discussed. Ben Barstow asked if there was awareness of a new national sclerotinia research initiative.

05AN028 Phil Hamm *The control of Pythium caused diseases of carrot without the use of Metalaxyl*

Todd Crosby of Mercer Ranches spoke in favor of the proposal. There are more and more areas of resistance to Metalaxyl. Several different compounds are being studied. This is possibly the last year of the study due to lack of difference with control. The work done last year will be repeated. Last years studies did yield the information that resistant strains of Pythium do exist in the Northwest and the degree of resistance varies from site to site. Vydate is in the program this year to eliminate the possibility that the forking which was noted was not caused by nematodes. The use of Vydate will eliminate that variable. Ben Barstow asked if the Vydate was to be used in combination with the other chemicals. It will be used in combination with the fungicides. The occurrence of cavity spot and forking as characteristics is kept track of separately. The use of Vydate in combination with the fungicide will yield efficacy data by eliminating nematodes as a causal agent. Alan Schreiber asked what percentage of carrot production is outside Benton and Klickitat Counties. One half of Washington's carrot production is outside these counties. The problem of resistance is not confined to one specific area. Chuck Masters asked why there were significant differences in only one site last year. There are questions remaining about the reason for this. Identification of the strains of Pythium will be undertaken to establish whether or not they are pathogenic to carrots. Chuck Masters asked for clarification on the percentages listed for different portions of the proposed project and benefit percentages. It is complicated by the fact that the county and Oregon State University differ in their benefit computations and accounting. Andy Jensen asked for information about metalaxyl. It is a very effective system. It is applied post-planting but pre-emergence.

05AN029 Phil Hamm *Controlling Diseases of grass seed in the Columbia Basin of Washington and Oregon.*

Todd Crosby of Mercer Ranches spoke on behalf of this proposal. This is a continuation of work done last year. Rust and mildew are significant problems. The seed companies do not screen their varieties before they go out into the field. Rust control can cost as much as \$80 per acre. Different rusts predominate in different areas. A new problem is ergot. Varietal differences can be extremely important with regards to profitability. Some varieties with lower resistance will need to have 4 or 5 applications to achieve the same protection as 1 or 2 applications might give a higher resistance strain. The effect of fertilizers on the degree of resistance needs to be studied also. Byron Phillips asked how much of the work was being done in Washington State. All of the work is being done on site in Hermiston, Oregon. The data will be applicable throughout the Columbia Basin. More information was requested regarding the use of weather station data. Weather data from the weather station in Hermiston is being correlated with the incidence of outbreaks in order to create a predictive model for growers to use. Ben Barstow asked for clarification regarding objectives. Ben Barstow commented that it was hard to believe that resistant varietal trials had not been done already. One issue has been that presence of the disease did not necessarily affect yield. Chuck Masters commented that he needed more detail in the proposal in order to make a good decision. Kurt Volker asked how the problems that had arisen in the rust identification with Minnesota had been resolved for the upcoming year. Problems with the ability of the Minnesota lab to begin the identification of the rust samples in a timely fashion has been addressed by sending the samples dried. This allows the lab to initiate identification when they have the time without the rust samples molding. Alan Schreiber and Kurt Volker asked for clarification for items on the budget page. Kurt Volker asked that Phil Hamm update the proposal sheet dates and resolve discrepancies on the budget page.

05PN057 Dan Ball presented by Phil Hamm *Eastern Washington Columbia Basin Grass Seed Weed Management*

Proposal reflects intent to continue with study of herbicide use in seedling grasses. Study will also be done on soil fumigants. A significant objective is to continue to disseminate the information that has been gathered through both field days and through reports. Kurt Volker asked if the other chemical companies that were being used in the trials had been contacted for funding. Phil Hamm did not know whether or not Dan Ball had done so. Byron Phillips asked if the budget had been reviewed. Alan Schreiber contributed that this research has been funded by the WSCPR for four of the last five years. Ann George asked if the project was expected to be ongoing or if it would be coming to an end. If the problem can be controlled then the research will stop. If the problem continues then the research to find a control will be ongoing.

05AN036 Phil Hamm *Potato Tuber Moth Invasion of Washington – Assessment of Options for Management*

Potato tuber moth could become an extremely important problem in the Columbia Basin. This is a new significant problem. Andy Jensen stated that this pest has not existed in Washington or Oregon until the last few years. It is believed that this will be the most significant problem for potato growers since late blight. Growers are more scared than they have ever been before. The

Washington Potato Commission will definitely fund this proposal. It has been difficult to get an entomologist, a site and money all together at the same place and time to work on the problem. Work will take place for the most part in Hermiston with Sandy DeBano conducting the research. This is a tropical-subtropical moth. Last week 49 moths were trapped. This is the furthest northern latitude that the moth has ever been trapped. Need to understand this pest. Two different budgets are presented that allow for different funding possibilities. Ann George asked if another technician would need to be hired. A new technician would need to be hired and the remainder of the time would be used on other projects. Andy Jensen confirmed that there was a rumor going around that the processors would be implementing a zero tolerance policy for potato tuber moth. Alan Schreiber commented that if a zero tolerance policy is implemented it would be industry ending. This is the first time that the industry is confronted with a stored insect pest. The potato tuber moth can live in storage. Ted Maxwell commented on environmental considerations. In California there was a greater problem in fields that were furrow irrigated. The exposure of the tuber allows the female to lay her eggs in the potato. California now is using overhead sprinklers. Another possible solution is to use an insecticide at kill down. Covering the cracks in the potato hills is effective but it is difficult. Kurt Volker asked about potential biological controls. Work is being done at the UDSA facility in Parker Heights. There is a virus that shows potential. Problem must be solved in the short term. There is only a couple years to solve the problem. Ben Barstow asked for more details in the proposal. Dan Robinson asked how far north the moths had moved. By the end of the 2004 season the moths had been trapped all the way to north of Moses Lake.

05AN033 David James presented by Tessa Grasswitz *Use of ground cover vegetation and insectary plants to enhance integrated pest management in hops*

This proposal is to test the relative usefulness of various plants at retaining beneficial insects in the hop yard to aid in integrated pest management. The best plants will attract and retain beneficials and provide them with food and shelter. Some work has been done but with other systems and under different conditions. Replicated field trials are the goal. Chuck Masters asked if these flowers could act as disease hosts in addition to beneficial insect habitat. Ann George replied that the biggest problem in a hop yard is a powdery mildew that is specific to hops. In addition to that, the amount of vegetation that this amount of plants would represent would not affect the already overall high humidity within the hop yard. Ben Barstow asked how this would fit with normal hop yard floor management. Many hop yards have gone to mowed centers and some are no-till right now. Ben Barstow commented that wild flowers are quite difficult to establish. Kurt Volker added that shading could be a problem in establishing the plants. Ben Barstow asked if there would be yield data collected. Jay Schafer added that California is doing this and would have information accrued.

05AN034 David James presented by Tessa Grasswitz *Biology of the hop looper (Hypena Hmuli) and its natural enemies*

Very little work has been done on the hop looper. There is a lack of even basic information. It is not known what the number of generations or instars is. It is important to gather this basic information about the life cycle of the hop looper before moving on. After the basic life cycle is understood then the research will proceed into looking at the predators and parasites.

05AN035 Francis Pierce presented by Tim Smith *Public Access to AgWeatherNet to Increase Effectiveness of IPM Programs*

The Public Access Weather System (PAWS) is to be shut down. The equipment is old and needs to be upgraded. The new system will be developed as a weather net but the new system will not be funded for a year and a half. This proposal is one of the requests from private sources to participate in the support of the existing system in the interim. The PAWS system is a great benefit to IPM programs. Alan Schreiber commented that Herb Teas had sounded the alarm that the PAWS program is ending. PAWS is used by many commodity groups. Byron Phillips added that the group is called the Paws2 funding group to clearly distinguish it from the AgWeatherNet which will come before the legislature this year. Tree fruit will contribute. Doug Walsh said that the system is being developed by WSU and will have multiple applications such as road conditions, disease outbreaks and frost conditions. Chuck Masters asked how the PAWS system would be accessed right now. PAWS would be accessed by the internet and the hope would be that it will be available to everyone for the next 18 months.

05PN037 John Stark *Evaluation of Talstar root dips for control of root aphids in true firs*

The common name of Talstar is bifenthrin. Root aphids attack the root system of young trees. The industry had an effective product by it is a carbamate. The use of this cholinesterase inhibitor was granted under a Section 18. The Section 18 will not be pursued again because it is unlikely to be registered in the future. The only other alternative is a root drench. The advantage to this is that there is no spraying involved. Art Losey asked if this project had been seen before. Alan Schreiber replied that a proposal involving the same pest was seen but this is a different chemical. Talstar is registered for a granular application. It is registered but there is not efficacy data. Christmas trees are on the label. Kurt Volker asked how long the tree roots needed to be protected. Generally, they did not need to be protected for very long, about a year. A request was made to have the budget reviewed. Alan Schreiber commented that the form used was probably from an old RFP.

05AN040 Cheryl Schultz *Investigating the use of herbicides to control invasive weeds in Washington natural areas: Effects on non-target butterflies*

The Department of Fish and Wildlife is the applicant group for this proposal. Invasive and aggressive species of plants are threatening the 12,000 acres of native grassland in Washington. Suppression of one species can lead to the spread of another. Herbicides are one tool being looked at to suppress non-native and aggressive plant species. What is not known is how the application of herbicides will affect the rare butterflies that inhabit these grasslands. This is one piece of research that will dovetail with others being done to assess the impact of herbicides on desired species of flora and fauna. Research is also being done on botanical impacts. Ben Barstow asked why the 50 and 100 rates were chosen. Legally, higher rates cannot be applied. Also the butterflies are down in the thatch so they would be receiving less than 100%. Alan Schreiber asked if the interest was for lethal or sub-lethal doses or for both. Art Losey asked how there could be any certainty that the desired plants would replace the dead ones. It was reiterated that the botanical research was being conducted elsewhere. Art Losey wanted to know if reaction by environmental groups to the public spraying had been evaluated. The applications would be made at Fort Lewis. Furthermore, the issues of chemicals were reckoned in half-lives but the threat to endangered species was reckoned in doubling times. Byron Phillips asked for the identification of the matching fund source and then asked for clarification on the funding

dates. The Department of Fish and Wildlife was providing the matching funds. Chuck Masters raised potential labeling issues such as special use issues and wet land issues. Art Losey asked if registrants had been approached for funding. The chemical companies had not been approached for funding. Art Losey asked if the study showed that there was injury to this non-target species, and the species was threatened or endangered, would that jeopardize the registration of the use pattern of the chemical.

05AN032 Robert Gallagher *Mechanical and Cultural Management of Weeds, Soil-borne Diseases, and Residues in Direct-Seed Systems*

The proposal involves the testing of a rotary hoe and a rotary harrow for use in conservation tillage cereal grain systems. Good control of prickly lettuce in wheat has been demonstrated and that is weed which had shown some degree of herbicide resistance. A side benefit to this approach is the disturbance of the weed back which can diminish weed pressure and provide cost savings. Aeration can also ease disease pressure. The cost of using a rotary hoe is \$1.60 per acre. There is no measurable crop damage. The rotary hoe may not always work as a stand alone practice. The budget allocations were explained. Alan Schreiber asked Ben Barstow what the future of this technology was for a conventional dryland farmer. Ben Barstow replied that it was going to require a lot of patience. It is critical to mesh the use of the machine with the soil moisture. The approach would be patchwork and require education of the applicator. The suppression of wild oats was as good as conventional methods and the suppression of prickly lettuce was superior to conventional approaches. Last year the work was done on winter wheat and this year it will be done on spring wheat. Chuck Masters asked what levels would be monitored. The stands, the yields and the costs would all be monitored.

05AN042 Terry Miller *Enhancement of Biological Controls for Cereal Leaf beetle in Washington*

The cereal leaf beetle is a non-native pest. It is spreading rapidly. It is a Eurasian pest that is generally found in areas of twelve inches of rainfall or more. Here it is found in irrigated grains. Parasitoids have worked very well on the East Coast. There has been a national program aimed at the control of CLB since the '70's. It is not a yield issue at this point in time, because the populations are not that high, is a quarantine issue. California does not have it. Canada does not have it. Timothy hay in Washington and Christmas trees in Michigan are hosts that are affected by the quarantine. A great deal of the resources that had been dedicated to the CLB problem has been redirected to Homeland Security. Time was spent in the East learning the rearing procedure of the egg parasitoid. An alternative host was found in tomatillos. Wheat growers are being paid \$500 per acre to use the land as insectaries. One parasitoid was found in Spokane so it can survive in this area. It is a matter of getting them raised and out into the region. It is critical to get them established in the field in this area so that, even if the Colorado facility is closed, it would be possible to go out into the field, collect them, bring them back into the lab and re-propagate them. Byron Phillips asked if this is a quarantine issue would there still be a need to fumigate. As long as California does not have this insect the need for fumigation remains. Alan Schreiber asked if this was a one year project. At this point in time it is a one year project. The goal is to get the parasitoid established in the field. Once this is done then they can be harvested and brought back for rearing. Alan Schreiber asked who the reviewing agents were for the budget. Barb Smith is located in Prosser and Tom Kelly is in Pullman. Kurt Volker commented on the justification listed for the project. Art Losey asked if California did not have this pest or if

they simply had not looked for it. Regardless of the status, the need for fumigation exists even on corn going in to California. Andy Jensen asked if Tom Mick had seen this proposal. Tom Mick has seen the proposal and Eric Zakarison has signed off on it also. Andy Jensen also questioned the time frame of the funding and the matching funds. He inquired as to whether or not the WSCPR had a policy regarding the awarding of matching funds in a year other than the year of the proposal. Alan Schreiber responded that it was impossible for the Washington State Commission on Pesticide Registration to match funding cycles with all of the commodity groups. However, the WSCPR does not generally fund projects whose matching funds have already been spent.

05AN043 Terry Miller *Habitat Manipulation to Enhance the Effectiveness of Aphidophagous Natural Enemies of Myzus persicae and other Pest Aphids I Irrigated Organic Cropping Systems Using Within Field Natural Enemy Banks and Artificial Outbreak Foci*

Organic cropping systems need biological controls. A parasitic wasp complex that parasitizes green peach aphid was discovered in the '90's. Biological controls need year round homes for food and shelter. Generally, in commercial cropping systems, damaging insects get to a crop site before the beneficials arrive to counteract the problem. Nectar and pollen are necessary elements for beneficial insects to thrive and be able to move all the way into the target field. The plan is to examine seed mixtures and habitat corridors to establish the optimum mixture for the benefit of aphidophagous insects. Art Losey asked about the length of the project. This is the third year of a five year project. The desire is to go another year, but the fifth year is questionable. Chuck Masters asked about the temperature effect that is mentioned. Often the beneficial insects do not build up until the weather warms. There is significant overwintering if cover is in place to offer some protection to the insects. If there is cover then the beneficials do not need the extra warmth to be in place when the pest insects arrive. Andy Jensen asked whether there was evaluation of aphid populations or leaf roll virus infection rates. There is some aphid sampling done. Interest is focused in the rate of parasitism at varying distances from the edges of the field or from the insectaries. Alan Schreiber asked how insectaries could be maintained through the various crop rotations that are common for the area. The goal is to have permanent insectaries that would benefit all crops in the rotation. Kurt Volker asked for more information regarding the travel budget. Work is being done with growers in Spokane and in Benton or Franklin Co. Chuck Masters asked for a definition of Small Planet Foods. Small Planet Foods is the organic arm of General Mills. Kurt Volker commented that all of the commissioners are interested in the judicious use of chemicals. Unless the data exists to demonstrate that a danger exists generalizations should not be made regarding hazards or benefits.

05PN046 Doug Walsh *Breaking the pest and disease cycle in commercial ornamental propagation nurseries*

A large propagation nursery has been started up in Mabton. The propagation nursery consists of 200 acres of stockyard nursery separates 13 acres of glass house nurseries. The nursery maintains a website at www.northwesthort.com. This past year they developed a problem with spider mites within the greenhouses. Evaluation will be done of current practices and development of quarantine procedures. Development will take place of procedures that will prevent the introduction of pests into the greenhouse environment. Evaluation will be done of current chemical practices to see what is effective under glass. Art Losey asked whether this was a localized problem or whether it was industry wide. This is a widespread problem but the

configuration of the glass houses among the field and the sheer size of the nursery do contribute unique features. Alan Schreiber asked about the Northwest Nursery Crop Research Center. It is a USDA project that is like the Small Fruit Research Center. Alan Schreiber asked about the word count and the dates that were listed in the proposal. The problems were acknowledged. Art Losey asked Bob Berger if he believed that research done in Mabton would be applicable to nurseries on the West side. The research would be applicable to the West side and to both large and small greenhouses. Ben Barstow asked how long the project would be. Significant inroads should be made within the calendar year. Spider mites and powdery mildew will be around forever. Bryan Sakuma asked about the impact of the licensing fees. There is a question about the matching money from the USDA and the money that is being requested. Chuck Masters asked about the budget allocations. The salary indicated is be for the technicians.

05PN044 Alan Schreiber presented by Carl St. Hilaire *Weed Management for Dill Grown for Oil*

Dill for oil is grown as part of a rotation. Dill is distilled for dill oil which is used primarily in pickles. About three years ago dill growers received a Section 23 for Caparol, prior to that there was no herbicide for dill. It is an adequate herbicide for broadleaf weeds but it doesn't work very well for grasses. Grasses can cut the yield in half. Good gross on dill is in the neighborhood of \$700 or \$800 per acre. The request is for funds to continue research for herbicide data collection. Alan Schreiber added that this grower group actually contributes the money themselves. The growers themselves are the plot evaluators. The need is for one more year of efficacy data. Then application will be made for a Section 18 for Sonalan, a pre-emergent, and a Section 18 for Post, a post-emergent. If this is successful there will be two Section 18's for Washington and Oregon. The competition is in Bulgaria which has much lower costs. The only options for dill growers are Roundup which is non-selective, Caparol, cultivation and hand weeding. Kurt Volker asked how many pounds of dill were produced in a year. There are about 25,000 acres of dill grown in the Northwest. The rate of production is about 100 pounds per acre. This is approximately two and one half million pounds of dill. There are only about 3 or 4 dill growers in the Northwest and a couple in Canada. Seventy-five percent of the market in the United States is filled by this group. Byron Phillips asked for clarification on an IPM project for weeds. Alan Schreiber explained that because of the few alternatives for weed control there has had to be great reliance on non-chemical control methods. Use of two additional herbicides would be integrated into the existing non-chemical control methods.

05PN048 Doug Walsh *Thrips Management in Washington State Concord Grape Vineyards*

The goal is to find a replacement for Dimethoate. Dimethoate has been voluntarily canceled by the registrant. Danitol and pyrethroids showed great thrips suppression without secondary pest flare-ups. The need is to replicate the findings that there is no secondary pest flare-up and then the recommendation can be freely given. The plan is to work with Gowan to get registration for Mesurol. Work will be done to try to quantify thrips damage. Byron Phillips asked why Thiodan and Carzol were being looked at. They have been traditionally used for the problem and Dimethoate is also being used. These chemicals provide a sort of baseline. Alan Schreiber commented that he had concerns about the degree to which mites and aphids were a problem in concord grapes and why flare-ups were an issue. Alan Schreiber also asked where the figure that on average 30% of juice grape vineyards were sprayed with insecticides annually came from. That is a figure that is given out at the Concord Grape Research Council Meetings. The concord

grape growers have repeatedly asked for an alternative to Dimethoate on thrips. Chuck Masters asked if the total matching funds should be \$9000 after having included the \$2000 that Gowan was contributing for work on Mesurol.

The meeting was adjourned until the next day.

January 5, 2005

The meeting reconvened at 8:00 am.

05PN045 Alan Schreiber *Control of Curly Top in Garden Bean Seed*

John Shipley the representative of the applicant commodity is present. The beet leafhopper is the vectoring agent of beet leafhopper transmitted virescens agent (BLTVA). Research deals with both curly top and BLTVA. One half of the garden beans for seeds is susceptible to curly top virus and one half is resistant. The industry is in danger of losing the ability to grow the susceptible varieties in the United States. The production of those seeds would have to be done in other countries. This problem is limited to this region. The money for the research came from both the garden bean industry and also the small seed growers. A trial was done last year that included coriander seed, carrot seed, radish seed and bean seeds. A lot of work is being done in potatoes. Potatoes have a large amount of research money going into the problem. The USDA has an Emerging Disease Specialist working on the problem in potatoes. Data collected from this trial would seem to indicate that the period of susceptibility is far longer than originally thought or that the period of susceptibility is later than previously believed. The trial will be repeated but with modifications as to plot layout, chemicals used and application periods. Art Losey asked what was being done in the meantime. The growers are shifting the production of susceptible varieties into areas of lower risk. Jay Schafer contributed that the Basin seemed to be especially affected by the problem. Andy Jensen asked for clarification about the mention of curly top. In the trial last year curly top virus did not show up but evaluations are done for both curly top virus and BLTVA. Andy Jensen asked whether or not Cruiser was registered for these crops. Cruiser is in the process of being registered for beans, but primarily dry beans. If efficacy can be documented then, because these are non-food/non-feed crops, a 24C can be pursued.

05PN038 Gary Chastagner *Control of Phytophthora ramorum on Christmas trees and nursery stock*

The project was funded last year and some rhododendrons had been added to the trial work to give some idea of residual effects of fungicides. This pathogen that causes Sudden Oak Death is regulated. In 2003, there were 3 ornamental nurseries that it was found in. In 2004, it was found in 24. This led to regulatory actions by the WSDA. Currently this pathogen is not in the landscape with the exception of one county in Oregon. The reality is that the pathogen moves with the plants. In the ornamental nurseries that were the recipients of the regulatory actions this pathogen was found in over 50% of the plants so the likelihood is that the pathogen has already moved into the landscape. This year's research would be much the same as last year's with the inclusion of more rhododendrons to look at residual activity of fungicides. There is great concern in the regulatory agencies that the use of fungicides results in symptom suppression. Most of the work will be done with contact type chemicals with some inclusion of systemics.

The addition of surfactants is also being studied. Bob Berger asked if WSNLA had been approached for funding. They were not approached for funding by they are supporting other aspects of the work and it is not reflected in the proposal. Andy Jensen asked for clarification on the regulatory restrictions. The finding of the pathogen in a nursery results in a regulatory action. The finding of the pathogen in the landscape from a nursery plant will result in a quarantine situation, probably on a county wide basis. Mandatory inspections of every nursery will begin on January 10. This represents a major change and is an effort to deal with the political pressure from concerns that the pathogen will spread into wild lands. The fungicide will help protect existing plants. Goal is to find ways to protect the environment if it does become established in the landscape in order to minimize the economic impact.

05AN049 Ekaterini Riga *Management of Carrot Rust fly, Psila rosae (Fab.) and Cabbage maggot, Delia (Hylemya) radicum, with entomopathogenic nematodes and fungi*

The project works with entomopathogenic nematodes and cabbage maggot fly and carrot rust fly. This is the second year of the project. The work is being done in the field. Work is being done to fine tune the dosages and mixtures that are being used. Alan Schreiber remarked that Wyatt Cone had had a grad student looking at the possibility of using nematodes to control insects and did not find them to be an effective tool. Alan Schreiber asked if there was anyone in the United States that was using nematodes effectively. The timing, temperature and taking care not to expose the nematodes to sunlight are all extremely critical to being able to use them effectively. The process had developed a bad reputation due to the difficulty of getting all of the conditions to be optimum. Doug Walsh asked if there were commercial sources still available. There are two. For the lab experiments the nematodes would be raised. For the field trials the nematodes would have to be purchased commercially. Alan Schreiber asked how long the project was expected to take. The growers are not prepared to wait for more than a couple of years. As soon as the right combination is found that will be all that is needed. Kurt Volker asked for verification of some of the figures that were included in the proposal. Kurt Volker also asked if the project was aimed solely at organic farming or if there was some application to conventional farming as well. Nematodes can be combined with pesticides and be a part of a conventional program. Byron Phillips asked for the source of the matching funds. The matching is in-kind. Chuck Masters asked about the in-kind match. Organic farming requires a great deal of manual labor.

05PN053 Tim Miller *Perennial seed control in blueberry*

Presentation was made by Carl Libbey

Perennial weed control is a problem for both organic and conventional blueberry growers. Weed control during the growing season are generally limited to hand weeding or hoeing or wick applications of glyphosate. Various weed control programs are being tested. Low cost conventional, moderate cost conventional, organic, or a combination of methods are being tested. Good suppression has been achieved with flame and oil. Bob Berger asked about the formulation of Casoron. A granular formulation was used. Byron Phillips asked if acetic acid had been tested. Tim Miller has tested acetic acid. It has been used for roadside applications for blackberries. Kurt Volker asked if there was any benefit to combining flaming with herbicides. Jeff Samples asked if the Blueberry Commission was going to give funding. It is expected to receive the funds.

05AN054 Tim Miller *Testing of micro-rate technology for weed control in table beets and Swiss chard seed crops*

Presented by Carl Libbey

It is critical to control weeds in table beet and Swiss chard seed crops to produce high quality seed and to keep yield at economically viable levels. Program has focused on 2 or 3 different formulations applied using micro-rate technology. The results were outstanding. The need is to reproduce these results to verify the high degree of weed control with the low degree of plant injury. The testing needs to go through a second season to see if the treatments had any effect on the viability of the seeds that were produced in the previous season. Alan Schreiber asked to have the term micro-rate explained. The process was to apply a fraction of the normal rate multiple times. For instance, a 1/3 rate application would be made followed a week later by another 1/3 rate application followed a week later by another 1/3 rate application. The herbicide was combined with seed oil. Kurt Volker asked if the success had anything to do with the application equipment. The equipment was standard.

05AN05 Steve Booth *Potential of an indigenous lugworm, *Abarenicola pacifica*, to biologically control burrowing shrimp*

Presented by Tim Morris

The phasing out of Carbaryl that is required by the Washington Toxics Coalition means that all avenues of burrowing shrimp control must be explored. The lugworm is one option that may work. The oyster industry is in jeopardy and any economically viable form of burrowing shrimp control would be welcomed. Alan Schreiber asked what a lugworm is. A lugworm is a marine invertebrate. This particular genus is quite large and is indigenous to both parts of both Tillamook Bay and Willapa Bay. A grower in Tillamook Bay noticed a correlation between the influx of lugworms and a decline in the incidence of burrowing shrimp. This proposal will cover both some lab work and also introductions into other parts of the bay. Other biological controls are being explored but if this works it should be explored. Alan Schreiber noted that there is no money being donated only matching in-kind. The money has gone to other projects. Ben Barstow asked if there were any concerns about bringing Oregon lugworms into Washington. The lugworms already exist in the Washington waters. Chuck Masters asked about environmental impacts. Lab work would be done but lab work in this instance would be very limited in its usefulness. A small release would be done and monitored before anything large scale would be undertaken. Art Losey asked if these lugworms are natural predators why haven't their numbers already risen dramatically. That is unknown. Kurt Volker asked about funding from other studies that might be complementary. If any of the commissioners would like to have more information on any aspect of this problem or the avenues of research that are ongoing they are welcome to contact Steve Booth.

05PN039 Chang-Lin Xiao *Control of *Sphaeropsis* Rot of Apples*

This is a type of post-harvest decay. In Washington about half of the apples harvested are put into cold storage. This was first found on d'Anjou pears and then found that it caused more problems on apples. This pathogen is present in all apple producing areas of Washington. Red Delicious along with Goldens, Granny Smith and Fuji. The fungus colonizes the fruit and develops later. Due to the fact that this is newly recognized there is very little known about it. Kurt Volker asked if it is a problem for all apples or primarily Red Delicious. It is estimated that 20% of the loss is by this fungus. Andy Jensen asked about the term newly recognized. It could

have been here for a while but has come from somewhere else. It could have come with crabapples. Andy Jensen asked where the fungus is living when it is not on the apple. Cankers are evident on trees in some cases and is spread with irrigation. It is orchard related. Jay Schafer asked if the spores persisted on the storage bins. This is an orchard related fungus not a storage related fungus like blue mold. Ann George asked if it was possible that the fungus existed here before but was suppressed by the old style fungicides and now that they are not being used the fungus has flourished. That is possible and it will be examined in the second part of the trials. Kurt Volker asked if the grower would donate the apples rather than pay for them. The cost listed is for storage costs and for the grower both.

05AN022 Laurel Hansen *Identification of Pest Ant Species in the Pacific Northwest*

Presentation by Art Losey

This is the second year of this project. The project involves ant sampling, collection of ants and identifying them. Ant identification is necessary for applicators and for homeowners' education. Each type of ant requires a different form of suppression. It is important to know which ants are beneficial and which are not. Different types of ants are coming into the state that had not been here before. Kurt Volker asked if Laurel Hansen made the identifications herself or sent them to others to identify. Laurel Hansen makes the identifications herself. She is considered an ant expert. Kurt Volker asked what biomes remain to be collected from. Last year collections were taken from Washington, Oregon and Idaho. This year she will concentrate on Washington. Kurt Volker asked if she has looked at other collections. She has looked at collections all over the world. Her collection of ants is the largest world. Chuck Masters asked what a biome is in the ant world. It is important to understand the conditions and surroundings of the ants. Bob Berger asked about the class taken in Costa Rica and if it was WSCPR funding that paid for it. It was not paid for with WSCPR funding.

05PN058 Joe Yenish *Broadleaf weed control in fall-seeded grain legumes*

This is a fairly specific proposal looking at broadleaf weeds in fall planted peas and lentils. The targeted weeds are prickly lettuce, dogfennel, sowthistle and daisies. Sencor is one of the few products available and can cause crop injury. There is a biology and ecology component to the trial. Matching funds are from US Dry Pea and Lentil Association. Kurt Volker asked about the biological component and the size of the trial. There is very little literature so it is necessary to get an idea about direction needed for research. Limited population will work in a controlled area to get an idea of how well the numbers will correlate so to get an idea of what further research is needed. Bob Berger comments on the dates listed in the proposal and the fact that they are not in agreement. Some dates are in error but most of the dates are correlated to the crop year due to the fact that the project is ongoing. The plots are already in place.

05PN020 Rick Boydston *Post emergence broadleaf weed control in mint with low rates of sulfentrazone and mesotrione and mint tolerance to auxin disrupter herbicides*

This is a study of weed control with lowered rates and post emergent applications. Crop safety data and efficacy data will be generated. Currently four post emergent herbicides are registered for use in mint Buctril, Stinger, Basagran and Sinbar. Trials will be done with all three types of mint. The project will look at low rates of Spartan and low rates of Callisto. Byron Phillips asked about the timelines set forth in the proposal. The work would be done during the summer and the reports would be given out in the winter. Bob Berger asked what MIRC is. MIRC is the

Mint Industry Research Commission. Bob Berger also requested that the provided format be used. Jeff Samples asked what the application timing would be. The project would begin with 2-3 inch mint in early April. Kurt Volker asked about the justifications in the proposal that states that hand weeding exposes farm workers to pesticides. The comment was put into the proposal to fill up the section and may not be pertinent. Dan Robinson noted that 35,000 on one page and on another it is 40,000. The actual figure is actually 32,000. It would help to keep the estimates the same.

05PN021 Rick Boydston *Volunteer potato control in snap beans with glyphosate, imazamox, fomesafen and clomoxone*

More and more snap beans are being grown in the Columbia Basin. There is very little information available. Volunteer potatoes are fierce competitors and reduce the snap bean yield. The volunteer potato berries are a contaminant to the snap beans. Western flower thrips are also an increased problem when volunteer potatoes are present in the field. The research would look at different cultivation, herbicide application and planting times. Byron Phillips asked about the per acre impact. There is no data on the impact because snap beans are not grown behind potatoes for the simple reason that it is unknown whether or not they can be controlled. Doug Walsh asked what the cost is of sending a crew through the field to manually hoe out the potatoes. To merely walk through the field costs \$38 per acre. Ben Barstow asked about the problem posed by the potato berries. It is a problem as are nightshade berries. Alan Schreiber commented that the commissioners should not rank this proposal poorly due to lesser acreage of the crop. Todd Crosby commented that it was the early planted snap beans that had the problem with volunteer potatoes. Later planted crops could be cultivated ahead of the planting. Kurt Volker asked for more information regarding the volunteer potatoes as a focal point for thrips damage. Kurt Volker wanted to know if there was any research being planned regarding this issue. There is none at this time.

05PN041 Alan Schreiber *Asparagus Pest Management Program*

Presented by Kevin Bouchey

Aphids are a problem for asparagus. Di-Syston is consistently on the chopping block. Warrior is showing promise and more work needs to be done to collect efficacy data. There are buffer zone issues. New chemicals will also be tested. Limited tillage in a perennial crop creates weed issues. Groundsel, puncturevine and bindweed have no labeled herbicides in asparagus. Grade analysis and yield analysis will be done. Harvest takes place on an every other day basis due to high labor costs. Ann George asked why the Di-Syston problem has not been solved when it has been around for years. Alan Schreiber replied that Fulfill was found but the rate that was registered was too low to be effective. Neonicinoids are toxic to the aphids but does not have uptake in the asparagus so there is no systemic effect. Lab work is being done right now as soon as it is completed a Section 18 will be applied for. Flonicomid will be worked on next year. Andy Jensen asked about the biocontrol of puncturevine. The 14 degrees below zero put an end to that research project. Andy Jensen asked how consistently asparagus aphids are a problem. Alan Schreiber replied that of the last ten years the population has only been down two years. Kurt Volker asked about the stream information contained in the proposal. Three growers out of 300 put spray on by ground. Sometimes a product put on asparagus by ground does not work by air. It is important to gather that data but current regulations prohibit it due to buffer zone issues.

A Section 18 will be applied for to make an aerial application with Warrior. Jeff Samples asked if it was effective for beetles also. Warrior is effective for beetles and it is cheaper.

05PN031 Kim Patten *Screening of Alternative Methods to Manage Burrowing Shrimp Infestations on Bivalve Shellfish Grounds*

The addressing of the carbaryl replacement issue is a top priority. This is a time sensitive issue. One of the most pressing pesticide issues in the state of Washington at the present time and one of the most difficult to solve. Evaluations are taking place of mechanical, biological and chemical replacements. Evaluating the conditions that are favorable or not for burrowing shrimp. Funding sources are listed. Art Losey asked for clarification of the possibility that Dungeness crab is an adequate predator. There are areas of the bay that have never had burrowing shrimp. Work is going on to determine why that is and one possibility is that those areas have a large population of Dungeness crab. Bob Berger asked for clarification of footnotes and dates. Andy Jensen asked how plots are evaluated. Plots must be uniform to start with. They must be of uniform density and uniform elevation. At low tide burrow counts are made. After count then the application is made and later a second count is made. Kurt Volker asked for information about the mechanical control research. Crushing has been evaluated for the last two years and the result has not been satisfactory and has been abandoned. Now the researchers will evaluate a completely different mechanical approach involving shanking and high pressure hoses. Kurt Volker commented that he had had a chance to evaluate a proposal that had been made to the Northwest Center for Aquaculture Research. Kurt Volker remarked that he had some confusion about duplication of budget requests and why no mention was made about WSCPR funding. Chuck Masters asked about the budget allocations for technicians. Chuck Masters asked if the products that are being worked with will be registered by their companies if they are shown to be successful. The companies are difficult to pin down. Kurt Volker commented that the companies are generally more interested after they know it will work.

05PN030 Kim Patten *Cranberry weed, insect and disease management for Washington using low-risk alternative pesticides*

Currently there is no product registered for cranberry girdler. There is a new product that looks promising but there is a need to finish the efficacy studies. New pests are coming. Perennial weeds are an ongoing problem. Fungicides need improvement. There is need for work all across the board for pesticide work on cranberries. Funding matches are listed. Byron Phillips asked for clarification on the selection of old mandate versus new mandate. The project is aligned more closely with old mandate but also the IPM work could be rationale for a portion to be allotted to new mandate. Chuck Masters asked whether or not the matches had been approved. The matching funding has not yet been approved but has been approved in the past. Andy Jensen asked about the practicality of acetic acid applications. It is practical in spot applications and does not change the pH of the soil. Rate and timing of the vinegar applications are variable and there is a need to understand the use pattern better. Bill Mason asked about work that was being done on strawberries that adjusted the growing practices that resulted in the elimination of all pesticides with the exception of fungicide. At this time that is not being done in Washington because we have a great deal of problems.

Kim Patten issues a thank you to the commissioners for their funding of research for spartina control. The registration of imazapyr took place this year and was very successful. 6000 acres

of spartina in Willapa Bay was sprayed this year and worked well. In the next 3-4 years the work on spartina in Willapa Bay should be done. This is one of the best things that WSCPR has done for the state of Washington.

05AN025 Jay Brunner *Sustainable management of leafrollers in apple orchards*

The need for leafroller control lessened for a time but in the last 2 years has once again risen as a major problem. Research will address this issue in three ways. It will characterize the resistance levels. It will address why there are changes in the leafroller population. It will develop a knowledge base for dealing with new registrations that are in the pipeline. The project involves developing a baseline dose mortality data. The goal is to develop best management practices and to develop strategies and to do this there must be understanding of the biology of the insect. Kurt Volker asked if the commission should anticipate a three year project need for a graduate student. That is a standard program for a PhD student. Andy Jensen asked for more information about cross resistance comments. There is some indication that there is cross resistance between the older organophosphates and some of the new chemicals that are just coming out. Best management practices will serve to prevent resistance issues.

05AN052 Christian Grue *Toxicity of herbicide tank mixes used to control Spartina on juvenile salmonids*

Imazapyr has been registered for use on spartina and has been very successful. The safety of imazapyr has been well documented but the work has not been done on the combinations of chemicals that are used in the cleanup program. This needs to be done in order to head off any potential litigation. Work will be done with students at the University of Washington. Kurt Volker asked a question about methodology. There are 10 fish per bucket and water is adjusted to gram weight. Alan Schreiber asked if the oyster growers are putting in any money for this program. The oyster growers are not but the U of W and the chemical industry is contributing. \$75,000 - \$80,000 is being put up by the oyster industry for other research projects. Andy Jensen asked about the source of the water. This is a standardized protocol. Chuck Masters asked how sub lethal effects would be monitored. Activity will be monitored. Observations have created a behavior chart of activities to look for. Behaviors such as a narcotic state, erratic swimming or on-bottom gilling will be noted.

A presentation is made by Christian Grue, related to his receiving a mailing at his home on Bainbridge Island regarding the hazards that pesticides pose in surface waters pose for salmonids.

05AN050 Walter Sheppard *Development of an Integrated Pest Management program for parasitic mites on honey bees in Washington State*

Presented by Jamie Strange

The chemicals that are in place to control mites in bees are failing. The mites are developing resistance. Untreated stock in the United States generally lives only two years. Softer chemicals are coming on the market but none of these treatments has the efficacy that commercial beekeepers are used to. None is effective as a stand alone treatment. There are also cultural practices that can reduce the mite population within the stock. Work will be done to determine the efficacy of each component and also to assess the efficacy of combinations of treatments and practices. There would be two apiaries – one on the West side and one in Pullman. The

differing climates create differing bee seasons. Ben Barstow asked about bee lines. Lines of bees will be tested for resistance and hygienic traits. Doug Walsh asked about the gene mentioned. The hygienic trait is linked to a gene. Chuck Masters asked about Objective 3. Queens will be distributed for evaluation. Several hundred queen will be distributed to smaller bee keepers that will evaluate the lines. Kurt Volker asked what the value of the bee industry is to the state of Washington. Jerry Tate, president of the Beekeepers Association, answered that the value in the state of Washington is \$350,000. Pollination impact though moves the total for Washington, Oregon and California added to bees and honey production to approximately 1 ½ million dollars.

04AN051 Walter Sheppard *Evaluation of WSU selected honey bees stocks in Washington commercial beekeeping operations*

Presented by Jamie Strange

The stress of moving bees is significant. This project undertakes the evaluation of lines of bees for travelability and mite reduction or resistance. Ten queens from each of the lines of bees would be introduced into commercial operations. Evaluation of the mite populations as they experience the travel conditions will also be done. Timing information to coordinate honey removal and mite suppression will be gathered. Kurt Volker asked about the amount of money that has been committed by the commodity group. The in-kind donations are quite high in the form of bees and labor.

Lunch break at 12:20pm.

Bob Berger moved to re-elect the existing slate of officers: Kurt Volker, chair; Chuck Masters, Vice-chair; Ann George, Secretary/Treasurer. Ben Barstow seconded the motion. The motion passed unanimously.

The issue of the March meeting was brought up. The original plan was to have the meeting in Olympia in order to coincide with the legislature. That is not an issue at this time because the Commission does not have a legislative proposal. It would be an opportunity to see the WSU-Puyallup research site.

Ann George moved that the venue of the March 15, 2005 meeting be moved from Olympia to Puyallup. Byron Phillips seconded the motion. The motion passed unanimously.

Andy Jensen commented that the minutes needed to include the proposal ranking list as generated by the commissioners. Without the list of proposal rankings, the minutes lack clarity and references to the rankings have no meaning.

Ann George moved that the minutes be approved with the corrections that were specified and with the proposal list as ranked by the commissioners. The list should contain the average score only. The list would contain the project number, the commodity, the researcher and the average score ordered in descending order. Bob Berger seconded. The motion passed unanimously.

Dan Robinson voiced concerns with a scheduling conflict for the upcoming March meeting. Dan Robinson would like to move the March meeting from the 15th to the 16th. That would move it from a Tuesday to a Wednesday.

Ann George moved to move the March meeting to Wednesday the 16th. The motion was seconded by Art Losey. The motion passed unanimously.

Alan Schreiber reported on the amount of funding that was available or potentially available.

Kurt Volker asked if there was a natural break in the proposal ranked scores. Andy Jensen suggested starting at the bottom. Art Losey agreed.

Kurt Volker commented on 05PN027. There are problems with the methodology and there is little money added. There are registered compounds so there is no need to do efficacy work.

Andy Jensen moved that funding be denied to the bottom four ranked proposals. These are 05PN027, 05AN040, 05AN023, 05AN043. Art Losey seconded.

The floor was opened for discussion.

Dan Robinson asked for perspective on the raspberry harvester. Alan Schreiber asked how the Commission's philosophy was different from last year. Jeff Sample reminded the Commission that the presenter had volunteered to bring the proposal back in March. Chuck Masters asked Bryan Sakuma about long term strategies being developed by the Red Raspberry Commission. Bryan Sakuma said that he agreed that the proposal needs to go back and be reviewed. Bob Berger said that the plan was for the harvester to remain in Vancouver for two years. Bob Berger voiced concern that the machine was not being cared for properly due to lack of interest. Alan Schreiber said that the administrative staff would look into the care of the harvester. Bob Berger requested that the applicants be informed of our concern as to the care and condition of the investment in the harvester.

There was no support of 05PN027

Ben Barstow asked why the scoring was so low on 04AN040. Art Losey commented that it did not seem that adequate 'homework' had been done. They needed to look at other resources. There did not seem to be any reference to the end result...What would keep the invasive grasses out? Kurt Volker commented that much work has already been done on Lepidoptera. While Kurt Volker agreed that the information was difficult to access, it was out there and available.

Alan Schreiber talked about budgets that are reported as having been reviewed and in actuality have not been seen by the listed people. There is also an issue regarding the proof of match funding. Sandra Ristow said that she had found the same answers when she asked for information. Art Losey added that the attitude of the researcher is often indicative of the research. The issue of professionalism is the bottom line. It calls into question the integrity of the research. Can the research be trusted?

The vote was called for. The motion carried unanimously.

Alan Schreiber asked for direction from the commissioners regarding each of the proposals that have been denied funding. The consensus was that unless a proposal was invited back, a denied proposal would have to wait until the next funding meeting for re-submittal.

Alan Schreiber read the policy on re-submissions and funding denials.

Ben Barstow moved to invite the Red Raspberry proposal 05AN023 for re-submittal at the March meeting. Art Losey seconded the motion. The motion passed unanimously.

Art Losey asked for clarification on 05AN042. Alan Schreiber said that the persons that were listed as having reviewed the budget in fact did not ever see it. Additionally, the matching funds that are listed here were actually awarded for the previous year and were simply carrier forward. Ann George said that this issue had been addressed in discussion.

Art Losey moved that funding is denied for proposal 05AN042. This proposal is invited back in March to provide an explanation for lack of review and the funding. Jay Schafer seconded the motion.

The floor was opened for discussion.

Byron Phillips said that he had issues other than these with this proposal. Other states and other countries would not allow shipments without fumigation. What point is there of a systems approach if a quarantine exists.

Kurt Volker addressed concerns that he has on the comment that the proposal made on ecosystems. Statements were made regarding adverse impacts without substantiation on both of the proposals. Alan Schreiber talked about emails that were sent out advising the researchers to not make generalizations or statements that could not be substantiated.

The vote was taken. The motion passed with one opposed.

Ted Maxwell moved that the Commission approve all proposals with a score of 80% or higher. Ben Barstow seconded the motion.

The floor was opened for discussion.

Chuck Masters voiced concerns that some of the proposals appeared to have been accepted after the due date. Alan Schreiber replied that proposals were not accepted after the due date. The cover pages often come in to the office later than the proposals.

Jay Schafer said that he had problems with proposal 05PN031. The footnotes, the budget and the non-viable mechanical option provided substantial concerns. Chuck Masters voiced concerns with registrant support. It is possible to spend a great deal of money without any real chance of the registrant going ahead with the process. Art Losey had problems with the reality of the mechanical option being useful because the shrimp are so deep. Bob Berger replied that the goal

is to crush the tunnels. Art Losey asked how the equipment could be moved out to where it needed to be. Bob Berger had concerns with how the hydraulic process which needed water could be workable at low tide. Exploration of options needs to be continued because of the lawsuit agreement. They are serious about this exploration because if they do not come up with a viable option they will be out of business. Kurt Volker repeated concerns that he believed that the funding is being duplicated and not split.

Chuck amended the motion on the floor to not fund 05PN031 and invite to bring back in March with clarifications. Jay Schafer seconded the amendment. The amendment passed with one no vote.

Chair Volker called for any other concerns regarding the proposals receiving the score of 80% or higher. No concerns were voiced.

The vote was called for. The motion passed unanimously.

Art Losey moved to approve all the projects remaining on the list. Andy Jensen seconded the motion.

The floor was opened for discussion.

More information was requested on 05AN024. Art Losey responded that the hands on clinics have been so popular that we have had to turn people away. WSU has since taken over the project but it is time consuming and costly. It would be a great benefit to the industry. Byron Phillips asked if there had been a decrease in complaints. It has not been seen with this but it was evident with the licensing. Chuck Masters asked how this fit in with the other commodity groups. This would be considered an IPM demonstration.

Dan Robinson asked about 05PN048. Does a problem exist in Concord grapes with thrips? Doug Walsh responded that the Concord grape industry has a funding research meeting just like this Commission. The Concord grape industry has asked for help. They sent out an RFP. Alan Schreiber added that it is not whether or not we think that there is a problem. The Concord grape growers feel that it is a big enough problem that they have put up their money for more than a fifty per cent match.

Byron Phillips asked about 05PN020. It is poorly put together, poorly written and calls into question the quality of the research. Alan Schreiber said that he would not comment on the proposal but his experience was that his research was of high quality. Andy Jensen agreed that the quality of his research was high. Kurt Volker agreed that the research that had been done was good but he has problems with the proposal also. Kurt Volker recommended that the proposal be brought back in March. Chuck Masters said that that could be the recommendation for many of the proposals. Ann George said that the problem did not seem to be with the content so it should be approved with the request that it be done better in the future.

Byron Phillips asked about 04AN049. Byron Phillips has grave doubts about the viability of this research path. Doug Walsh said that large scale usage has been discontinued. The price has

gone up as vendors dropped out. Jay Schafer said that this may have benefit when the seeds are required to be organic.

Chuck Masters asked for more input on 05AN026. Does the policy allow for the funding of what is a survey of the industry? There are issues with the cost of CPR versus Eliza. Bryan Sakuma concurred that some are concerned about the protocols. They are coming from Scotland. There was no doubt about the need for such a test but there was concern about the process. The Red Raspberry Commission has doubled their contribution for matching fund. Chuck Masters voiced concern about the screening tests. Bryan Sakuma agreed saying that there were only two labs and there was doubt about their ability to get set up in time and if they would have other higher priorities.

Byron Phillips moved to exclude 05AN049 from the block and vote on it separately. Bob Berger seconded the motion. The motion passed unanimously.

Chuck Masters moved to exclude 05AN026 from the block and vote on it separately. Byron Phillips seconded the motion. The motion passed unanimously.

Chair Volker called for any other amendments. There were none.

The vote was taken on the motion remaining on the floor. The motion passed unanimously.

Byron Phillips moved to decline funding on project 05AN049. Dan Robinson seconded the motion.

The floor was opened for discussion.

Byron Phillips said that there was no cash funding match. Ann George said that soil pests needed to be looked at from a broad point of view. If there are no chemical alternatives we must find a way to make some of these things work. Jay Schafer said that most of the organic proposals had been eliminated in this go-round. Organic products are a growing entity in the supermarkets. Doug Walsh added that proposals must originate from the affected commodity. Ben Barstow said that reducing damage by 10% would be a realistic goal.

The vote to deny funding for 05AN049 was taken by a hand count. Four votes were in favor of the motion to decline funding. Eight votes were against the motion. The motion failed.

Bob Berger moved to grant funding to 05AN049. Ben Barstow seconded the motion. The vote was nine in favor of funding and three against funding. The motion passed.

Chuck Masters moved to deny funding for proposal 05AN026 and re-submit in March addressing issues of protocol and procedure for the study. Ben Barstow seconded the motion. The motion passed with one vote against.

Alan Schreiber asked for clarification on the reasons for declining the funding of this proposal. The proposal was asking a lot of money to survey for the impact of phytophthora on red

raspberries. There were questions as to the protocol establishment and the testing of ELISA first and then PCR...the testing sequence. There were concerns that the Red Raspberry Commission had concerns.

Alan Schreiber totaled the fundings awarded. The total of these awards would put the Commission approximately 1% in the red. Does the Commission need to issue another RFP?

Ben Barstow asked if it wasn't in the Commission's best interest to issue another RFP.

Alan Schreiber said that it would be relatively easy to issue another RFP.

Kurt Volker agreed that WSU has stated that their policy is to forward allocate.

Ann George said that if another RFP was issued these proposals could re-submit.

Chuck Masters said that it would be interesting to see what comes forward. It might be an indication of what type of research we are missing.

Bob Berger said that this would help reinforce our policy of maintaining high standards.

Alan Schreiber said that it would be difficult to have another two day meeting. It could be the first 15 proposals or a selection by an executive committee.

Kurt Volker said that the researchers should be told that we are planning on awarding another \$100,000.

Alan Schreiber added that it was not practical to have another two day meeting. In the event that there was a large response to the RFP, the executive committee could be called upon to prescreen the proposals. Due to the shortness of time between the submittal deadline and the March meeting, the prescreening could take place by teleconference. The goal of the prescreening would be to reduce the number of proposals in accordance to the amount of funding available and the length of time allowed for reviewing at the March meeting.

Ben Barstow moved that a Request For Proposals be issued stating that we are accepting proposals up to \$100,000 to be reviewed and brought before the Commission at the March meeting. Bob Berger seconded. The motion passed unanimously.

Alan Schreiber elaborated that he would fashion a letter to send out to the possible responders to the RFP and email it to the commissioners for their approval. It would be done within the next few days. There was agreement that the time constraints were not exceedingly difficult and would not be cause for changing the March meeting date.

Ann George moved that the meeting be adjourned. Andy Jensen seconded the motion. The motion passed unanimously.

The meeting adjourned at 3:37 pm.

See also the final ranking document for the January 2005 meeting.