British Columbia Strawberry Growers Association

Strawberry News Winter 2016

2016 Annual General Meeting

The BCSGA Annual General Meeting will be held on **Wednesday, March 30, 2016 from 1:00 P.M.** at the Central Agriculture Facility Building, Room 290 at 32160 South Fraser Way, Abbotsford, BC **A light lunch will be served before the meeting starting @ 12:00 P.M.**

Please call the office to let them know if you will be attending for ordering purposes:

info@bcstrawberries.com or 604-864-0565

Proposed Agenda

Call to order & Approval of Agenda

Minutes of the 2015 Annual General Meeting

Board Report

Financial Report for 2016

Appointment of Reviewer for 2016

2016 Budget

Breeding/Research Projects - Michael Dossett & Eric Gerbrandt

Fresh Strawberry Promotion 2016 Campaign

Other Business - SID Trust Fund

Elections

Adjournment

Board of Directors

Ed McKim - President

Alf Krause - Vice-President

Jeff Gill

Jeff Husband

Sukhdev Khakh

Ajit Shoker

Directors terms expiring:

Jeff Husband, Alfred Krause, Sukhdev Khakh

Director no longer eligible: Jeff Gill

2016 Fresh Campaign

It's that time of the year again...Time to think of strawberries, strawberries and strawberry promotions and making sure that local BC Strawberries are on the mind of our consumers.

If you are interested in being involved this year please send an email to info@bcstrawberries.com

You can take advantage of the campaign in any way that you have the budget for. Website, print advertising, radio, and social media. We would like to hold a preliminary meeting on March 10th at 10:00 am in Langley, to get your 2016 campaign commitment dollars so that we can start to secure the radio, print, and social media contracts for the campaign.

Bring along any ideas that you feel should be shared, maybe there is something that your farm or company is doing that you feel would be beneficial to the whole campaign.

Call Lisa @ 604-864-0565 to confirm your attendance..

Research Report:

By: Eric Gerbrandt

Summer Planting of Runner-Propagated Plantlets – A Fresh Market Opportunity for BC Strawberries

With further reductions in the volume of processed market strawberries being produced in British Columbia, is there still an opportunity to grow the fresh market industry? The answer is likely: "yes, but easier said than done". There is only so much product that can be moved through fresh market stands, farmers' markets and u-picks because most consumers are only ever going to buy strawberries if they are available right next to the apples or potatoes in a big chain grocery store.

As recent history shows, production of day-neutral varieties (primarily 'Albion') continues to increase relative to June-bearing varieties. Seasonal demand for June-bearing fruit remains high, but returns to growers are narrow, resulting in a decline in production that is helping to bolster prices in the short-term. Simultaneously, general demand for out-of-season (historically speaking) strawberries has permitted the day-neutral market to make large gains as consumers are willing to compromise on their expectations for flavourful June-bearing varieties in favour of larger, firmer (admittedly less flavourful) day-neutral varieties. This is simply because these fruit are available over a much longer season and have better shelf life. As a result, consumers of fresh market strawberries only have two options in months such as September: A fresh local day-neutral strawberry or a less-fresh imported day-neutral strawberry. For this reason, as the June-bearing market remains largely a seasonal product with limited room to grow, the day-neutral market has made considerable gains because of the broader window of availability and better returns for the grower.

In fact, market research shows that BC consumers, if given the choice, will often choose local product over imported product. But, are consumers actually willing to put their money where their mouth is when prices are higher for local products? The differences in flavour and quality between local and imported product should be obvious to consumers, but these distinctions do not eliminate the considerable barriers to competing with imported fresh market product – a relatively inexpensive product that can be obtained on a year-round basis. Our more "seasonal" climate (i.e., wet, cool and depressing) is one reality that prohibits year-round production via open-field production; cost of land and labour are seemingly just as insurmountable because growers have so little ability to influence them. Therefore, the reality is that BC's June-bearing crop is limited by its short window of availability and that most of it is marketed directly by growers while day-neutral strawberries are available for fewer months of the year than product from other regions and often at a price premium due to differences in the cost-of-production.

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Benefits of Membership……

The BC Strawberry Growers Association is very active in promoting BC's strawberry industry, making sure that it remains vibrant. This is done through numerous program that are funded through levies producers pay on their strawberry production. Fresh levies are remitted directly to the Association, on Farm Gate sales, while processed levies are remitted by the processor to the BC Vegetable Commission who forwards these funds to the Association. Here is some of what the Association does and why growers can benefit by belonging.

The Association….

◊Negotiates the annual processing price processors pay for strawberries purchased from growers.

◊Collects levies from fresh strawberry producers at the rate of $0.005 cents per pound.

◊**Manages the Strawberry Industry Development Trust Fund which support eligible industry activities. These include projects involving research, grower education, promotion and market development.**

◊***Participates in the National setting of priorities for the approval of new pesticides.***

◊**Organizes a "Fresh BC Strawberries" promotion campaign generating fantastic support from the media. Radio interviews, on-site TV coverage, newspaper pictures & stories, with features on Food & Wine programs, and Blogs. These along with Social Media splashes all help to assist in bringing public awareness of the local strawberry industry throughout BC.**

◊Works closely with berry breeders and other scientists testing new cultivars to identify varieties that are adapted to BC's climate and environment. *Funds projects* to develop innovative production techniques for new and standard varieties using your levy dollars.

◊Direct access to the Ministry of Agriculture, Berry Industry Specialist who supplies us with the most current information regarding Pests and other matters related to Strawberries - See Growers Notes - by Carolyn Teasdale in our Newsletter

◊Provides this current and critical information to growers on invasive pests like Spotted Wing Drosophila

◊Is available to growers if there are production problems or other concerns, with the assistance of Breeders and Researchers.

... all made possible because growers pay levies on their processed and fresh strawberry production. We encourage you to please join the BC Strawberry Growers Association, pay your levy on strawberry production and help the BC strawberry industry thrive and remain vibrant.

Breeding Report

By: Michael Dossett

Strawberry Breeding Program - 2015 Update

In September 2015, we planted just over 2,000 strawberry seedlings from crosses performed in the greenhouse in late winter. These plants will be evaluated this coming season. In the meantime, we are busy propagating selections from last season for trials.

Our current approach to developing improved day-neutrals adapted to the Pacific Northwest and with the colour and flavour typical of our traditional varieties is to cross day-neutrals (especially those from California) with elite June bearing selections and cultivars for local adaptation. Because the day-neutral trait is relatively simply inherited, this means that for the foreseeable future, our seedling populations will produce both day-neutral and June-bearing seedlings. We plant these seedlings as plug plants in early September on raised beds with plastic mulch and make a first evaluation of them on the spring flush of fruit, selecting the first round based on size, flavour, firmness, and apparent productivity within the objectives of each cross. The seedlings are further monitored to identify those that rebloom and continue to produce berries later into the summer. In this way, we are selecting both day-neutrals and mid-late season June-bearers to help fill the summer production gap for fresh market growers. 2015 proved to be an excellent year with lots of exciting selections – hopefully 2016 will turn out just as well.

Growers Notes

By: Carolyn Teasdale BCAGRI

Weather: Last year's warm spring and hot summer weather of 2015 caused water stress in many fields. We are coming out of another mild winter, but fortunately January and February temperatures have been cooler than last year and we have had adequate rainfall.

Pests and Pesticides: Before we know it, strawberries will be blooming and lygus will be active in the fields again. Lygus populations were high on some farms last year. The key to lygus management is to detect and control the nymphs when they first hatch in the flowers. Mark Bolda from the University of California gave an informative talk on lygus at the LMHIA short course, and suggested lygus control when 1-3 nymphs are found per 20 plants sampled. We have many pesticide options for lygus now, and timing the application to small-sized nymphs is essential to prevent fruit damage.

Thrips are a reoccurring problem in day-neutral strawberry fields, and they thrive in hot, dry weather. In previous years we've seen high thrips numbers from early June through September. Watch for bronzing on the green berries! There is currently only one pesticide registered to control thrips and finding an alternative chemistry remains a high priority.

Thrips and lygus nymphs can both be monitored by tapping the flower clusters over a white surface and counting the insects that are dislodged. In the past, fruit bronzing has occurred when more than 2 thrips were found per flower cluster.

Lygus nymphs

Early thrips damage (bronzing)

A new aphicide, Sivanto Prime was recently registered on strawberries for control of aphids. Sivanto Prime has a very short pre-harvest interval. This provides another tool to manage aphids and reduce virus spread in strawberry fields.

"A new formulation of Agri-mek (Agri-mek SC) is registered for pre-harvest control of cyclamen and spider mites. In terms of biofungicides, Double Nickel 55 is a new product that can be used to suppress Botrytis and Powdery Mildew."

Preparing for 2016: Good irrigation management will likely be critical again in 2016. Let's plan for the worst but hope for a more "normal" strawberry season this year! I look forward to working with you and the BC Strawberry Growers Association.

Robotic Strawberry Picking…..

PLANT CITY, FL - "Robotics are changing the game. Our automated strawberry picker will be able to work at least 20 hours per day, including weekends," **Gary Wishnatzki**, Co-Founder of Harvest CROO and Owner of Wish Farms, shares the latest patent pending technologies that are gaining interest from strawberry growers. This technology will allow growers to avoid picking during the hottest part of the day when berries bruise the easiest. "In this sense it will take less time and energy to cool the fruit by picking in the evening hours and will allow for **better utilization of cooling facilities** and increase throughput by spreading out the load of warm incoming fruit over longer harvest hours," Gary adds.

Gary also tells me that shippers could add acreage without having to purchase additional cooling resources. Since the volume would be more spread out, there is also the potential to **double the capacity** that coolers can accommodate. While they have yet to name the strawberry picker, they have created a logo to accompany the new harvest technology and appropriately dubbed it Harv.

Essentially this patent revolves around the concept of a picking wheel. Named after Gary's Harvest CROO partner and Chief Technical Officer, Bob Pitzer, the Pitzer Wheel utilizes "conservation of motion principles" with robotic picking heads that can achieve **360 degrees of rotation** and will decrease the amount of movement the robot has to accomplish. A series of claws on the wheel pick berries. They will then be transferred to a packing area, where they will be inspected and packed into consumer units.

See the entire video of the Pitzer Wheel here:

https://www.youtube.com/watch?v=uB1JiVGTBo8

The picker uses Stereo Vision with **two cameras** mounted on the harvester with the lead camera situated to identify the berry's color, mass and size to decide whether or not it should be harvested. The second camera uses triangulation to pinpoint the berry for the claw to gently pick and place in the packaging.

The benefits are far reaching for the grower, Gary tells me. "Essentially we will be **lowering harvest costs** by increasing the speed and duration at which it can pick and pack berries in the field."

Gary adds, "Weighing packages will be a **huge savings** to growers, as well. Strawberries are currently packed visually until full. Over-packs can be 10% or more. Larger packs are estimated to be over-packed by even as much as 20-30%. On the opposite side of the spectrum, this technology can also eliminate rejections due to being short weight."

Growers can also possibly **reduce the usage of plastic** by over 30%, by using a film lid versus a clamshell pack which the program plans to provide. In regards to precision agriculture, the machine will also be involved in scouting as it travels through the field, taking images of plants which will then be aligned with a database of hundreds of images that can provide early warnings of things like pest presence which will help growers manage and even reduce pesticide usage.

Processed Strawberry Negotiations

The scheduled date for the Processed Strawberry Negotiations is

May 16, 2016

@ 9:00 AM in Boardroom 290

At the Central Ag Facility building at 32160 South Fraser Way, Abbotsford

Any member of the Association can attend, please let the office know if you would like to join us.

info@bcstrawberries.com

or 604-864-0565

Research Reports Cont'd

SWD was present in strawberries in 2015, and populations increased over the summer and fall, as in other berry crops. While strawberries don't appear to be as impacted by SWD, good prevention and management strategies remain important particularly for strawberries harvested from mid-summer through fall.

Winter and spring trapping along edges of Fraser Valley raspberry and blueberry fields from December –May has been done for the last five years. The winter of 2014-15 was warm and dry, resulting in much less SWD mortality than previous years. Over this winter and spring, we caught 6-9 times more flies than in previous winters. Summer trapping also resulted in very high SWD catches; 7-122 times more flies were caught each week in traps within blueberry and raspberry fields, compared to previous summers. And, SWD numbers ramped up earlier in the year. So, the SWD numbers were astoundingly high, both in summer and winter. Early wild fruit was heavily infested in 2015, unlike other years when it had only light infestation.

With such high winter and spring numbers, and high early wild fruit infestation, the berry industry was bracing for the worst, and I think that was a good thing, as growers were therefore more prepared to deal with the pest in a timely and proactive manner. SWD do not thrive in dry low humidity environments, so summer 2015 was not ideal for the fly. The ten day stretch of over 30°C in late June and early July decreased the number and impact of SWD flies through July. Additionally, the warm and dry summer and almost no rain made it easier to plan sprays and harvest schedules, and allowed growers to implement their rigorous management plans.

In 2016, the Ministry has the same recommendations as in past years:

1. Focus on field and equipment sanitation to reduce fly feeding and breeding sites.
2. Utilize monitoring tools and resources, stay informed.
3. Apply well-timed sprays prior to and during harvest. Consider a post-harvest application if the adjacent crop is ripening. Emergency registrations will hopefully be approved in 2016.
4. Harvest early, clean, and often; old hanging fruit, even slightly late, is an invitation to SWD.
5. Weedy areas are more humid, and can be havens for SWD.
6. Consider that wild unmanaged fruiting plants can host SWD and can be an overwintering site, so appropriate management of weeds and hedgerows is important.

SWD is anything but routine. The story has played out differently each of the 5 years we have had this pest, and we would encourage growers to keep up to date with the information available via Grower Association, BC Ministry, berry packers and processors, consultants, and fieldsmen.

Anticipate SWD, plan for it, and don't get caught unprepared!

By Tracy Hueppelsheuser

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On the other hand, these barriers may be shifting in magnitude as the Canadian dollar remains weak and as the cost-of-production in competing regions, such as California, increases due to difficulties with water, land and labour. Consequently, prices are a bit better lately, improving the economic viability of local day-neutral production and providing growers with opportunities to market through the big chains. Yet, to continue to grow these opportunities, the industry continues to look to the future: better varieties and more efficient means of production. While there is always the hope that fresh market prices continue to increase, or at least stay the same, improvements in yield and quality stand to provide growers with the ability to compete more effectively with imported product in order to secure a greater share of fresh market sales over an extended season.

Of course, the long-term solution is to develop superior varieties with better local adaptation, which is why the BCSGA has long invested in the local breeding program that now dedicates most of its resources toward developing and evaluating day-neutral varieties. The major goal of this effort is to develop varieties that can compete with 'Albion' for flavour and firmness while having superior yield, harvest ability and pest and disease resistance. With day-neutral strawberry breeding efforts in the Pacific Northwest being in their infancy, the odds are good that the BC industry will see considerable gains once a home-grown, locally-adapted cultivar is developed, tested and released.

In addition to breeding efforts, the BCSGA and LMHIA invested in two sets of field trials to evaluate alternative planting materials and timings, the results being presented at the LMHIA Short-Course over the course of the last three years. The motivation for these trials is based on the fact that bare-root day-neutral plants, traditionally established in the spring, take a couple of months to get established before bearing fruit. This is because the roots and canopy have to develop properly before the plant can support a considerable load of fruit. Therefore, manual de-blossoming is used to prevent cropping until the latter half of the summer in July and August, continuing into the fall as long as conditions remain favourable. In the second year, the plant is well-established and produces an early-season crop from the end of May and into June. Then production hits a lull around the same time as June-bearing fruit are on the market, which is followed by another late-season crop in July and August that continues into the fall as long as picking costs remain low enough to maintain profitability. The early-season crop is produced from flower buds that start developing in the previous season and the lull in production results from a delay in the plant's ability to generate flower buds quickly enough to follow the first flush after cool winter weather abates. As a side note, in the anomalous warm and early season of 2015, this lull was much reduced in comparison with more "normal" years.

By the end of the second season , the plants have a lot of branch crowns (i.e., "daughter" crowns produced to the sides of the original "mother" crown) and decreased ability to devote carbohydrates to fruit development, resulting in fewer, smaller fruit. At the same time, an overly dense canopy of leaves results in higher picking costs – ease of harvest being trait upon which breeding can improve. Also, a complex of viral diseases and root pest and disease issues accumulate over time, adding to the causes for reduced profitability into the third year and obliging field removal at the end of two years. Therefore, plantings generally have only a late-season crop in the first year and both early-season and late-season crops in the second year. Some potential improvements to this system are to develop varieties that have a less pronounced lull in production between the early-season and late-season crops – a definite possibility through breeding for local adaptation; to develop varieties that are more productive over a two-year production cycle; and to alter production practices for existing cultivars to get an early-season crop in the first year.

The first two improvements are goals of current breeding efforts while the latter improvement was addressed, logically, through trials to develop a means of establishing fields in the previous season. From these efforts, runner-propagated plantlets, established in the previous summer, stand as an opportunity for improved yields over the two-year planting cycle because they provide an early season crop in the first year.

In more detail, a first set of trials compared late-summer and early-fall plantings of runner-propagated plantlets with spring plantings of both bare-root plants and runner-propagated plantlets. In the first year, these trials demonstrated that late-summer plantings (Aug. 30 and Sept. 15) resulted in adequate fall establishment to produce a significant early-season crop in comparison with the bare-root standard. An early-fall planting (Sept. 30) did not perform as well as the late-summer plantings because the plants did not have as sufficient time to establish before winter arrived. Moreover , the spring planting of runner-propagated plantlets did not perform well at all, having less vigour than the bare-root standard that was planted at the same time.

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Research Reports - Eric Gerbrandt

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A second set of trials were concluded in 2015 to answer three additional questions: Do even earlier summer plantings perform even better? Do late-summer plantings of bare-root plants, (i.e."frigo" plants held over in cooler storage for several months) perform as well as runner-propagated plantlets? What is the cumulative two-year result of these new planting materials and timings? After collection of fruiting data for two full seasons, answers to these three questions were obtained as well as confirmation of the findings of the first set of trials.

First, an even earlier planting of runner-propagated plantlets (Aug. 12) had a superior first-year yield in comparison to the standard but the plants were physically spent by the second year and so the overall yields were the same as the standard. Second, frigo plants do not have the same vigour as a bare-root plant in the spring and so a late-summer planting (Aug. 12) did not perform any better than the standard spring planting. Third, collection of fruiting data over the entire two-year cycle demonstrated that timing is the key to taking advantage of planting in the previous season. Specifically, runner-propagated plantlets established on Sept. 2 were far superior (i.e., about 25% greater cumulative yield) to the bare-root standard over the entire cycle because of a large early-season crop; in contrast, a later planting (Sept. 23) was not able to establish as well to produce enough of an early-season crop in the first year to outperform the bare-root standard over the entire two-year cycle.

As a word of caution, this second set of trials was conducted on a single farm location over a single two-year production cycle. Results may vary based on different soils, seasonal climatic conditions and grower-specific management practices. Each grower should, if they endeavour to experiment with this opportunity for their own operation, tailor management of late-summer plantings to the specific needs of these alternative planting materials and timings. In doing so, the added costs of late-summer plantings should be weighed against the increased opportunity for marketing higher volumes of fresh product. These costs include a purchasing a more expensive planting material; de-blossoming, weeding, fertilizing and irrigating in the previous season; and rotating fields earlier than normal.

To recap, the use of alternative planting materials and timings stands as a significant improvement in production efficiency in day-neutral strawberries. This is a sure step forward in becoming more competitive with imported product and opening more fresh market opportunities over the extended day-neutral season. In the future, it should be a priority to combine these production practices with improved varieties that are better tasting, firmer, higher yielding and have better local adaptation to BC. Additionally, new selections from the local breeding program will hopefully have higher overall yields with a decreased lull between the early-season and late-season crops and superior fruit quality, harvest ability and resistance to pests and diseases.

These improvements should continue to raise profitability for growers and increase the local industry's ability to supply more of the fresh market's demand over the extended season. Looking beyond, there may be a need to further extended the fresh market season through re-visiting the use of protective structures, (e.g. high tunnels and greenhouses) using new varieties as they become available. These developments could help build stability for retailers, which will prompt them to stock local, fresh BC strawberries throughout the year.

Stay Connected

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