

NEWSLETTER

PRESIDENT'S MESSAGE

Hello to all our AGGA members,

It's July 10th as I write this and the weather is perfect summer weather. Chatter from bedding plant growers across the province are great, it was a great spring, good plants, happy customers and great sales.

Many of you have heard the government announcement of Bill 17. The Ministry of Labour has not listened to the AgCoalition and has deemed that under Alberta Labour standards, all greenhouses are not considered farms. What does this mean? This means that all hours after a 44 work week are overtime, with no allowance to bank hours as in the past. This hurts our industry, the vegetable growers more than bedding plant growers, I'm sure that could be argued but every operation will be affected. The Bill 17 announcement puts us at a competitive disadvantage to neighbouring provinces.

Unfortunately this is not a new issue, when I first became an AGGA board member, about 5 years ago or so, the very first meeting I went to with the Deputy Ag Minister was this same issue. The Ag Ministry has always held steady that greenhouses are farms, but that is not the same recognition with the Labour Ministry. They recognize an outdoor farm, but not an indoor farm.

The Red Hat Coop made the decision to hire Anna de Paoli and Associates to lobby against the Bill. They need our help. It is better for our industry to have Anna to represent the entire Association rather than only one sector. Anna is still on retainer for us anyways, in case something came up and there are still some funds available for her work.



With the AGGA hiring Anna what will happen is basically the same as with the carbon tax consultations. Funding is a joint contribution between AGGA, PIK N PAK Produce and the Red Hat Co-op. Funds received from AGGA memberships is what allows us to hire a lobbyist. Anna de Paoli, Joel Beatson and AGGA board members are working on strategy.

There is only a short window of time to fight Bill 17, a win of any kind is a win for our industry. We are doing everything we can to fight this.

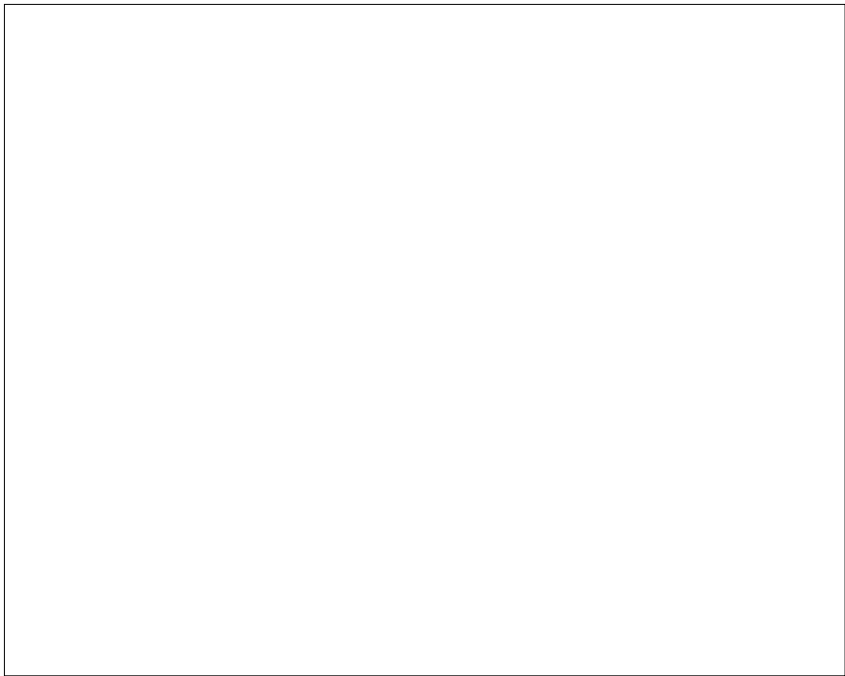
Debbie

Editor's Observations and Comments

Well, we just finished a great bedding plants season. Growers I talked to were satisfied that sales went very well. The weather on Victoria Day weekend was almost perfect. It is so interesting that we all depend on the weather. I want to write about cannabis in this issue. You may have seen media coverage of a very large greenhouse near Edmonton International Airport being constructed by Aurora Sky, 74,000 sq.m, equal to 16 football fields. It will be capable of producing more than 100,000 kg of cannabis per year - that is 18.5 acres. To my knowledge there are four (4) Alberta producers who have received a Health Canada license to produce. The process is that once these growers prove that they can grow quality cannabis for medicinal purposes, Health Canada will test the product and then issue a license to sell.

Is cannabis different from any other plants we grow in greenhouses, in the sense of it's structure and function? I will say the basics are the same. Cannabis produces roots, stems, leaves and then produces buds after photoperiod is changed. It makes the food the same way as cucumbers, tomatoes, peppers and petunias do; that is by fixing sunlight or light from supplemental sources. It breathes the same way in that is carry's out respiration. It responds to temperature, pH and it requires nutrients in the same manner that other plants do. I have seen iron deficiency in young cannabis plants as in petunias, marigolds and cucumbers.

I think we should learn about this plant as we would any another plant with medicinal value and importance. There is no doubt that Health Canada is regulating it because of it's safety concerns and possibilities of being misused, as the end product is very expensive. I was looking at some figures that it costs from \$ 1.00 to \$ 3.00 per gram. At this time Health Canada is predicting a shortage of the end product and is issuing production licenses and then sale licenses.



I think future cannabis growers will need help from experienced vegetable and annual growers and extension people. Insect and disease problems, as well as end product rejection due to possible mold contamination, are challenges facing all growers alike. So let us get ready and step up and meet the challenges that cannabis production growers will facing and extend our knowledge to them.

I have included three interesting articles on cannabis in this issue. I attended a very good webinar on greenhouse production too. So keep your eyes open for learning about cannabis and it's products.

Mohyuddin Mirza ■

CONTENTS

From the Editor	2	Energy Matters	8-9	- Light Deprivation System	16
From the Growers	3-6	AGGA AGM	9	Scholarship ad.....	15
AGGA Garden Party	3	Amber Project	10	Industry Development	17
AGGA Meet & Greet	3	New Crop Options.....	11-12	AGGA Board	18
Day of Discovery 2.0	4	GISC ad.....	11	Award Nominations	19
Crop Production Services ad	5	Claims Update.....	12	Advertising with the AGGA	
Olds College News	6	Cannabis		Ad Rates	19
Bill 17	7	- Bio Controls	13-14	Quote.....	19
- Standards & Labour Relations		- Expaining into Cannabis....	14-15	New Membership Form.....	20

Greetings Everyone

Dietrich Kuhlmann, Kuhlmann's Market Garden & Greenhouses Ltd.

Here at Kuhlmann's we just managed to survive the first big thunderstorm of the season. Damage was minimal compared to what it could have been. Only a small amount of hail, just enough to mark up our first crop of peas – the main thing is - structural damage.

Our Spring sales kicked off late due to the poor weather in April. May though was quite a different matter. Very busy right through and well into the month of June. Our enlarged vegetable plant section really paid off as did the red & white plants due to the Canada 150 theme.

I don't know about you but I have again noticed that despite strong sales, our bottom line is not keeping up and it seems no amount of hard work and long hours is helping fix this. But there's no use complaining – there is a lot of doom and gloom out there and I, for one, am very thankful that our customers continue to come in to shop and continue to strive for a nice yard, even the patio people were very happy again this spring. Yes, good quality and customer service is still the right answer in a tight market.

This weekend we will be selling our first peas, bunched beets, green onions and new baby potatoes and yes, dill weed as well. What's more, the sun is supposed to be out all-day Saturday and Sunday and man, we are going to be busy.

Good Gardening Everyone! ■

Summer, Has to be the Best Season of All

Malcolm Stielow, Thiel's Greenhouses Ltd.

For ornamental growers, there are more than four seasons. There's fall, planning, winter, ordering, planting, growing, and the eternal spring of sales. With our 2017 season largely wrapped up, for many of us, the final season of true summer can be enjoyed. It is the time of year when a grower's fancy turns to activities like actually sleeping, or eating, and maybe even getting so far as to plant their own garden (entirely comprised of root-bound plants, of course). Time to put away the ever-present anxiety that some plants aren't selling, and look at what you actually sold, your successes and things that might need a refresh. Here's what I gathered from our season, in a brief breakdown:

- Citrosa: Gone as fast as we could get it on the sales floor. Every single plant we grew and then every single one we



SAVE THE DATE

 Alberta Greenhouse Growers Association

Garden Party

Thursday November 16, 2017

BMO Centre, Calgary
6PM - 10 PM

Held in conjunction with the Green Industry Show & Conference

Check the AGGA website for additional information and pricing: <http://agga.ca> or www.greenindustryshow.com



 Alberta Greenhouse Growers Association

meet & greet

Lethbridge

Meet the board in person and spend the day touring area greenhouses including a tour of the Aquaponic Program at Lethbridge College.

The Alberta Greenhouse Growers Association (AGGA) invites all members and friends of the AGGA to their annual Meet & Greet.

Thursday September 14 @ 8:30am
Location: Lethbridge and area

8:30am: Meet in the parking lot of the Lethbridge College (3000 College Dr S, Lethbridge, AB, T1K 1L6)
6:30 pm: Dinner with the board. Location TBA
(please note each person pays for their own dinner.)

There is no charge to participate in the tours. If you wish to attend any part of the event please RSVP to Val @ 780-489-1991 ext 103 or email: member_services@agga.ca

Need more details? Call 1-800-378-3198

FROM THE GROWERS

ordered in - GONE in a heartbeat. We even had people taking it directly off our truck when we made deliveries. It would seem that the years of educating our customers on the merits of this wonderful plant have finally paid off. A boom year for mosquitos helped.

- Exotics: or at least things that are perceived as new or weird. Anything that wasn't your traditional looking flower was moving fast. Night Sky, Black Mamba, and Cappuccino petunias were gone almost immediately.

- Red + White: WOW! With Canada 150 this was expected, BUT we thought we'd be long on at least some of the traditional combo. Not so. Next year, I'm predicting that people won't buy very much red or white because that's all they saw this year. The country does look stunning, however!

- Strange edibles: On the sales floor, I do well selling things as edibles that traditionally aren't thought to be. Pansies, Portulaca, Cucamelon. Weird and cute seems to be playing well. The event we hosted in early spring featured Herbs: Culinary and Medicinal Uses. It was a hit and very well attended. Dr. Mirza was our guest speaker and the audience was captivated by his expertise and knowledge on this topic. We had ladies walking around with pots of purslane (super high in omegas), eating while they shopped! We'll be expanding on this event next year.

- Succulents: Continues to be a trend, though I feel like the bubble will soon burst on this as our generation gets more comfortable with caring for plants. Still, however, the favourite of many new or young gardeners. Sell them either very small, as in 2" pots, or very large, as in 4 year old jade trees.

Things that didn't move this year:

- Tomatoes: Moved fast in May, but despite harsh weather, stalled in June.

- Peppers: if it wasn't super spicy, they also stalled in June.

- Pink and Purple: This just wasn't their year. I'm not sure why, precisely, but I had so many people that were adamant about no pink or purple in their garden this year.

Best growing and learning success

- We didn't use one application of any type of spray (bio friendly or otherwise) to control aphids this year. We hit the season off hard with banker plants and aphidius colemani – producing many of them from January to May. We had SO many hunting wasps in the building. Nadine hosted groups and events at the greenhouse providing info tours of our general facility, our future plans, our IPM program and our commitment to grow clean. She was also invited to speak at several industry and community events on the same topic. Overall, this candid and informative approach to our methods has proved very successful at the retail customer level – they seem to like what we're doing. We hope this all translates to continued success.

We also put many plants out the door in ways that aren't just sales. Dig'n Dirt Day, our community garden initiative now in its second year, was another rousing success. It resulted in beautiful container gardens for the local food bank, and good media coverage. We have made a conscious effort to step up our social media presence this season, and have seen increased foot traffic as a direct result. By empowering a couple more key people in the company to add to the Facebook posts, we've seen increased reach on our promotions and events. From a management perspective, however, if you do this in your own organization, be sure to set 'rules' to what the message 'looks'



Pre-GISC Conference Session
*Day of
Discovery 2.0*

Wednesday, November 15, 2017
10:00 am - 4:00 pm

A Day for Growers!

The AGGA Day of Discovery 2.0 is continuing with the same successful format of last year's pre-conference event.

Connect with your peers and local experts on the hot topics of the day. Together we have an amazing amount of shared knowledge and experience. Learn, Share, Grow!

Advance registration required. Visit the Green Industry Show & Conference website for more information and registration: www.greenindustryshow.com



FROM THE GROWERS

like so the overall culture of your company is not lost. Consistent messages with fresh ideas go hand in hand.

We lost a greenhouse to a severe thunderstorm. Dorothy and Toto would have been impressed. With social media we took that event and turned it from a bitter negative, into something that could almost be mistaken for positive. It was pretty spectacular how none of the Canada 150 planters were hit that night and how we had so many wonderful offers of help from our network! Take your blessings when and where you get them. Oh...and on social media...nobody likes a whiner. They do however, like to see wild and crazy weather!

Early in spring, we also opened a new greenhouse and to celebrate the opening, ran a yoga class in it for the admission price of a food bank donation. This was a huge hit in the community. It also just felt right and good to do it. I'm finding more and more that the success of a greenhouse is only partially your plants and other product. Many stores have plants. What defines us, in opposition, is how much WE CARE. Our community spirit has been a winner for us. Our products being of high quality and unique in nature are just a given. Being a responsible community partner is the key.

Onward. ■

Under the LED

Michiel Verheul, High Q Greenhouses

Spring 2017 was a great spring and I hope that others agree! Every spring has challenges; it would be boring if it did not.

I reported in an earlier newsletter about our challenges with LED lights, but we got that solved. Under LED they predict that plants remain shorter, I can tell you this is true. In combination with Nature source plant food which normally keeps plants greener shinier and under control, we did not have to apply any growth regulator, actually our begonias remained very short, bushy mind you, but short.

The biggest challenge was light, for those of you who also track this you will probably also have seen that the quantity and quality were about half of what we need for optimum plant growth. Our LED's turn on using supplementary light" not "day light extension". So that means that the lights can turn on any time of the day and turn off when the light levels go up or a saturation point is



Career Posting Evergro Division

With numerous manufacturing sites and more than 200 Locations in Canada, Crop Production Services is the leader in advanced technology servicing the turf, horticulture, agriculture, consumer and related markets. We lead through customer focus, safety, innovation, performance, and environmental responsibility, with quality products and services in the markets we serve.

Evergro Division, a Strategic Business Unit of CPS, has an immediate opening for the following position in Southern Alberta.

Outside Technical Sales Position, Horticulture

Reporting to the Horticultural Sales Manager the successful candidate will be calling on greenhouses, nursery and market gardens which produce a wide range of ornamental and edible plants. You will be supported by an established branch office and warehouse in Calgary staffed with an experienced team of individuals with a proven track record of proficient distribution and customer service. Representing the industry's leading product lines, Evergro has a long history of assisting customers to maximize their production and quality.

Specific Responsibilities Include:

- Contacting both new and existing customers to support them in their businesses
- Coordinating product trials and assessing results
- Attending trade shows and grower meetings
- Assist with managing and forecasting inventory
- Providing sales forecasts and hitting targets
- Collecting market data

Qualifications of the Position Include:

- Living our 3 Safety First principles: Do it safely or not at all. There is always time to do it safely. Care for each other's health, safety, and security.
- You are a self-motivated professional who enjoys working independently and is capable of building strong mutually-beneficial customer relationships
- You have a strong formal background and/or post-secondary education in horticulture/agriculture
- You have extensive knowledge and experience in handling chemicals, pesticides, and associated products
- You have demonstrated uncompromised commitment to Safety, strong work ethic, exceptional customer service skills, and ability to work as a team player
- You have proficiency with MS Office software tools such as Outlook, Word, Excel and a willingness to become efficient with software tools used in our organization.

Please send all resumes and cover letters to:

Crop Production Services

Attn: Stephen Spence

5018 68th Ave SE, Calgary, AB T2C 4N8

Or email to: Stephen.spence@cpsagu.ca

FROM THE GROWERS

reached. This year we saw our lights turn on in April. That was very frustrating. By that time, I thought well if there is not enough light by now, then these LED's are not going to make a difference either, so I switched them to "auto Off". Not that it made any difference in what was happening outside, but it made me feel better. We did not see a decrease in our power bill with LED's but there were a few variables:

We have more light fixtures, we run them better and the result is we have a better plant.

Then came May and where we are situated in the province it was fantastic. Mother's Day was a bit late and cold but sales were hot, then a May long weekend like we have not seen in a lot of years! A familiar and seasoned grower told us one time "If you miss the long weekend the season is not going to be great, it will take longer to hit sales targets and is costs more to get most of it sold." In 2017 stuff flew off the shelves and into the trunks of vehicles.

We are full steam ahead with preparations for the 2018 growing season. Variety selections are almost finalised and ordering will start soon. Actually we already had to order our URC's for succulents as we sold out again this year, we ordered more again. We were surprized there were a few that were already not available or sold out from the supplier. At least we have some other options to buy this year.

2018 will start off without a lot of choice in Orange petunia's. I will spare you all the details but a little back ground may be handy here. It seems that corn, yes corn, is used to breed orange petunia's; this is a technique used for the last 20 years. One such scientist made it known that the corn variety used was a GMO variety. No one has grown a 3rd hand in the last 20 years or a nose out of their forehead, but GMO varieties are banned in many countries in the world so breeders began to dump orange varieties of Petunia's. The USDA has produced a list of banned varieties. You may be unhappy to hear there are

even some pink and bicolored varieties are on the list. In the mean time in Canada the CFIA (Canadian Food Inspection Agency) has taken a back seat and we do not expect a huge uproar from them because we plant a lot of GMO varieties in our grain fields. How will that effect you? Because of the tossed mother material and the small volume that can be sold to counties around the world, you will see some deletions from catalogs this year. Our advice; plan to use another genera when you are looking for orange colors. I am sure you will hear more about it so there should be time to prepare yourself.

In the mean time, preparations are also well under way for the Calgary edition of the 2017 Green Industry Show & Conference at BMO Centre at Stampede Park. On Wednesday November 15, the "Day of Discovery 2.0" will be jammed packed with great information targeted especially for the greenhouse grower. The following two days, will be filled with more world class speakers and an awesome trade show!

See you around this summer. ■

OLDS COLLEGE MEDIA RELEASE

Olds College to See Increased Seats for Horticulture Students

June 7, 2017, Olds, Alberta – To stay in line with industry and student demand, Olds College is increasing the capacity of its Horticulture programs. In 2016, the program received 83 total applications with a capacity of 30 students. In 2017, student capacity will be expanded to 50 available seats.

Olds College has offered programs within the Horticulture field for over 50 years, exploring the production and management of plants, the management of pests, landscapes, soils and water systems to achieve productive and sustainable systems.

The College offers three Horticulture designations – a Horticulture Technician Certificate, presented after the first year of student, a Horticulture Technologist Diploma after the second year of study, and a Bachelor of Applied Science Degree after four years.

The decision to increase the capacity of the Horticulture program comes on the heels of the College's announcement of the establishment of an increase in the College's Agricultural Management program, reflecting the increased need for skilled and knowledgeable in these key programs.

Applications for the 2017 intake for the Horticulture Technician Certificate are still being accepted, but space is limited, so students are urged to apply early. ■

Standards and Labour Relations Acts

Last month the Alberta Government introduced Bill 17, the Fair and Family-friendly Workplaces Act to update the employment standards and labour relations acts. Highlights include;

- Changes to how banked hours' work. Under the new legislation hours must be banked at 1.5 times hours worked essentially removing the benefit of banking over straight overtime. Increased banked time from 3 months to 6 months.
- Enhanced protected leave status for many categories including maternity, compassionate care, and family leaves. Reduced the eligibility for leave to 90 days of employment. New Personal and Family Responsibility of 5 days per year as unpaid time off, but with protected status. This covers personal sickness, short-term care of family, or school events of a child.
- Compressed work weeks would now be called Averaging Agreements and would allow for 1 to 12 week averages to determine overtime eligibility.
- Rest periods would now be a minimum 30-minute break (paid or un-paid) for every 5 hours of consecutive employment. With employer and employee agreement, these can be split to two-15 minute breaks.
- All employees would be eligible for general holiday pay, removing regular vs non-regular work day. It would be calculated at 5% of wages from previous 4 weeks.
- Vacation pay to be set at 4% or 2 weeks until 5 years' employment and will rise 6% afterwards. Half-day vacation increments now allowed up from minimum of 1 day.
- Termination and layoff notices will now require more notice. For 50-100 employees: 8 weeks, 101-30 employees: 12 weeks, and 301+ employees: 16 weeks.
- Greenhouses, nurseries, and sod farms will continue to not be considered farms under the Employment Standard Code (we have requested an explanation from the Minister).
- Easing of rules/regulations around formation of a union. This includes automatic certification when more than 65% of employees sign a union card or petition and that the first contract can be arbitrated if an agreement can't be reached.

There are several areas of concern for members. First, we've been informed that **all greenhouses are now considered excluded from the farm exemptions**. Previously vegetable greenhouse operations were included in the farm status. This is considered a change in interpretation of the regulations. Second, the change to banked hours' program is especially impactful to seasonal (weather dependent) businesses. The removal of this option will equally effect both employees and employers and the combination of a low threshold for overtime (8 hours/day, 44 hours per week) and the disincentive to banking of hours this will result in significant cost of labour increases for greenhouse operations. The new Averaging Agreements might provide some relief, but it

is too early to tell without the exact regulations in place. The removal of secret ballot requirement for formation of a union (still applies to 40-65% of employees voting in favour) is a cause for a concern as it removes democratic rights from the process.

The Alberta Greenhouse Growers Association has already been in touch with the Ministry of Labour on this issue and will be making a formal request for special regulation. We will also help provide resources regarding the changes in a way for employers to best update their own policies and practices. The new rules and regulations are scheduled to take effect January 1, 2018.

For more info on the changes, visit [Employment Standards](#) or [Labour Relations](#). ■

In case you
MISSED IT



The Alberta Greenhouse Rebate Program info session was held June 7th, 2017.

For those of you that weren't able to participate it was recorded: <https://youtu.be/ebtjgmG3Yeo> and a copy of the power point presentation is attached.

A copy is posted to the AGGA website: agga.ca

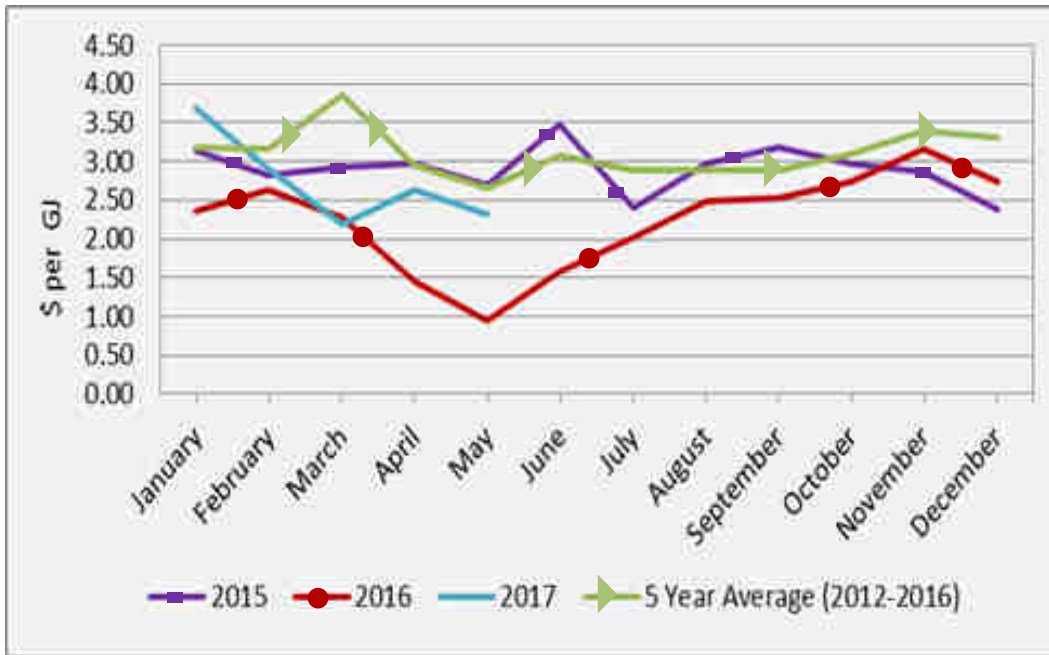
ENERGY PRICE MATTERS

Emmanuel Anum Laate, Senior Crop Economist - Economics Section, AF

The Canadian Weather Network has indicated in their 2017 Summer Forecast that the Prairies will see a temperature pattern that resembles last summer. They predict alternating periods of above and below seasonal temperatures which should come close to offsetting each other across most of Alberta and Saskatchewan. They indicated that Alberta is expected to see warmer than

normal temperatures for both June and July. Warmer than normal temperatures during summer can increase demand for cooling which usually results in higher energy prices. On the other hand, a mild summer tends to lead to weaker demand which helps moderate prices.

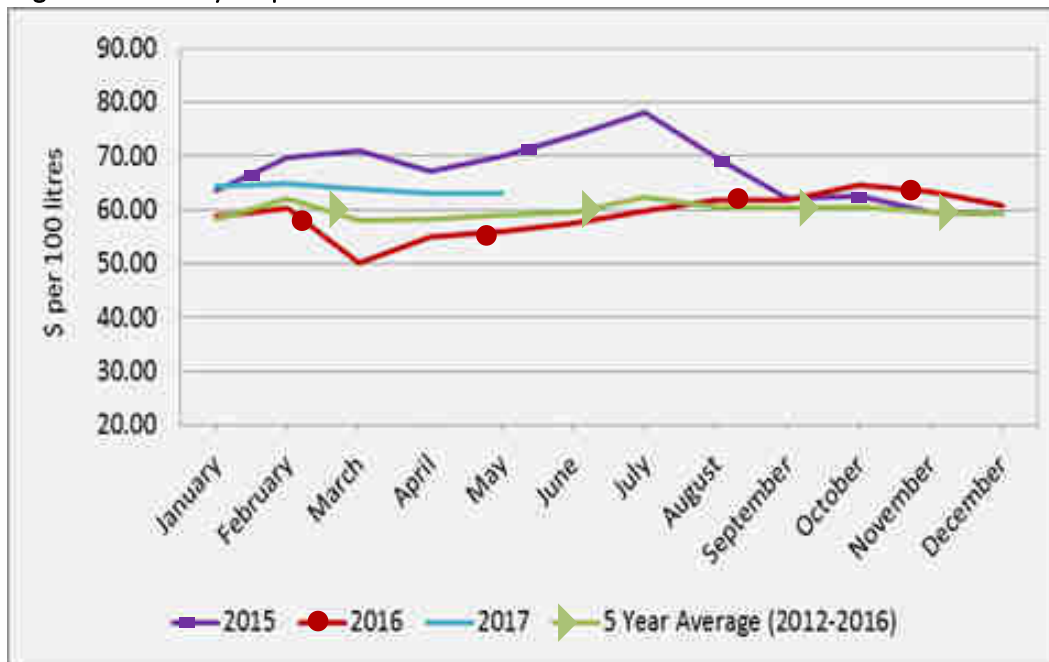
Figure 1: Monthly Natural Gas Prices in Alberta



Figures 1 and 2 show how average monthly natural gas and propane prices in 2017 compare with previous years and the average of the past five years.

As shown in Figure 1, natural gas (excluding service or delivery charge) traded at \$2.32 per GJ in May 2017, an increase of 147 per cent compared to the same period in 2016 and a decrease of 13 per cent compared to the 2012-2016 average. According to Deloitte’s June 2017 Price Forecast, the price of natural gas (AECO-C) is expected to increase to \$3.00 per Mcf¹ in 2017. This is somewhat similar to the forecast of \$2.99 per gigajoules (GJ) that TransCanada has reported in their June 2017 Power Market Update.

Figure 2: Monthly Propane Prices in Alberta

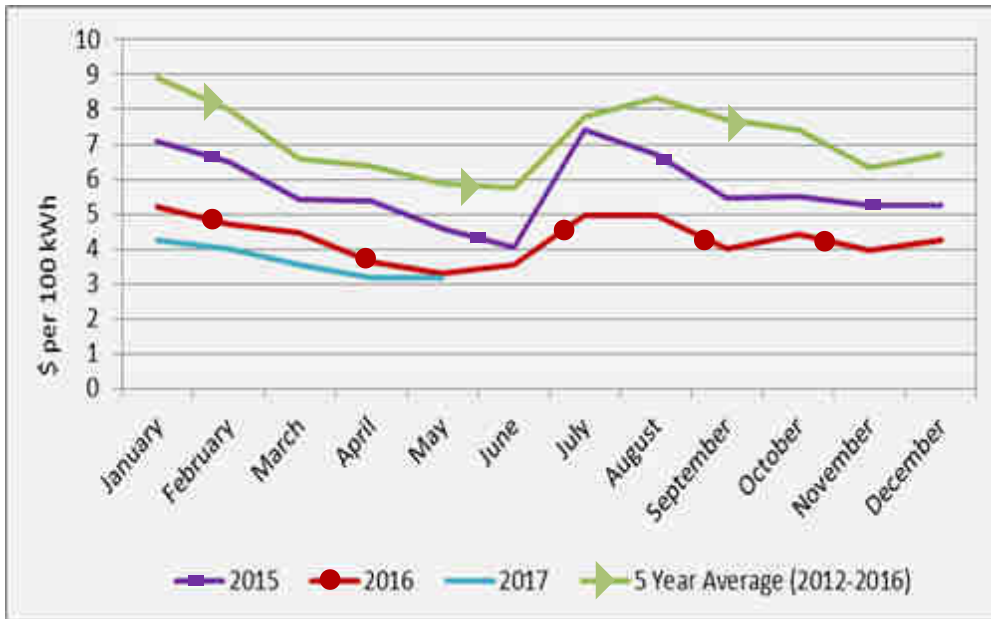


Bulk liquefied propane traded at \$62.98 per 100 litres in May 2017 (Figure 2), an increase of 13 per cent compared to May 2016 and an increase of seven per cent compared to the average of the past five years. The continued focus by producers on producing natural gas in liquids-rich areas has resulted in an oversupply of propane in the Alberta market. Major North American pricing and storage hubs for propane

Source: Alberta Farm Input Prices, Statistics and Data Development Branch, AF.

¹ Mcf = thousand cubic feet \$ per Mcf multiplied by 0.95 is equivalent to \$ per GJ

Figure 3: Monthly Electricity Prices in Alberta



Source: Alberta Farm Input Prices, Statistics and Data Development Branch, AF.

include: Edmonton, Alberta; Sarnia, Ontario; Conway, Kansas; and Mont Belvieu, Texas. Prices at these hubs tend to move in tandem with each other, although regional differences do exist. Edmonton generally trades at a discount to all the other hubs, reflecting ample supplies and high transportation costs to move propane out of the Edmonton/Fort Saskatchewan area.

Electricity prices in Alberta are currently low. Figure 3 shows how average monthly electricity prices in 2017 compare with previous years and the average of the past five years.

In May 2017, the average price of electricity (farm use, excluding service or delivery charge) was \$3.16 per 100 kWh, a decrease of about five cent compared to 2016 and 46 per cent compared to the average of the past five years.

If the 2017 Canadian Weather Network forecast is true, the demand for electricity may increase thereby putting an upward pressure on price. Electricity prices may also be expected to increase due to the expected modest increases in natural gas prices.

While Alberta’s electricity prices are currently low, they have a history of

being one of the most volatile prices in North America due to its relatively small size and limited capability to import power during price spikes. To protect consumers, the province has established a capacity market and passed Bill 16, a legislation titled “An Act to Cap Regulated Electricity Rates” on June 7, 2017. Bill 16 will ensure that families, farms and small businesses under the Regulated Rate Option (a government-regulated rate that fluctuates monthly) would not pay more than 6.8 cents per kilowatt hour over a four-year period starting June 1, 2017 to May 31, 2021.

Growers are encouraged to continue to proactively examine their energy sourcing in order to manage future price exposures. ■

View a color version of the newsletter on the AGGA WEBSITE: agga.ca

MARK YOUR CALENDAR
Thursday, November 16
Annual General Meeting
 Time: 5:00 pm - 5:30 pm

AGGA Garden Party
 Time: 6:00 pm - 10:00 pm

These events will take place in conjunction with the 2017 Green Industry Show & Conference, BMO Centre, Calgary
 Advance registration is requested for the Garden Party.

For details on the above events:
www.greenindustryshow.com
 Click on 'Conference Information'

To Make the Most of Biopesticides, Growers Need to Improve Knowledge

Publication date: 6/12/2017, Hortidaily.

A lack of knowledge about biopesticides is leading to inefficient application by growers and reducing the success rates of integrated pest and disease management programmes (IPDM). To make application of biopesticides more efficient and effective, growers need to be provided with independent advice on which biopesticides to use under which circumstances and given more details on how they should be applied in practical situations.



Photo: Hortidaily

of the optimum conditions required for good performance of each biopesticide. This includes quantity of product used, quantity of water, location within the crop that should be targeted and other environmental parameters that could influence performance.

The trials were conducted as part of AMBER (Adaptive Management of Barriers in European Rivers), a five-year project funded by AHDB, with the aim of identifying management practices that growers could use to improve the performance of biopesticide products within IPDM.

David Chandler, principal research fellow at University of Warwick said: ‘It was clear from our observation trials that there was a lack of understanding about how biopesticide efficacy is affected by factors such as population sizes of pests and diseases, environmental factors such as exposure to UVA and B and water volumes.

More information needs to be given to growers on how to apply biopesticides in practical situations. This could be done through modifications to improve labeling”

Joe Martin, crop protection senior scientist at AHDB said “In a survey we conducted as part of AMBER, we found that growers perceived biopesticides to be unreliable, however we believe this could be in part as a result of incorrect applications. We need to make sure growers are provided with as

much knowledge as possible about the optimum conditions required for good performance of each biopesticide in order to identify potential improvements in application.”

Biopesticides are plant protection products based on living microorganisms, plant or microbial extracts, or behaviour-modifying substances and are a key part of a successful IPDM. Within the next 20 years, the number of biopesticide products available is likely to exceed the number of conventional chemical pesticides. Biopesticides are low risk products for human and environmental safety and many are residue-exempt, meaning they are not required to be routinely monitored by regulatory authorities or retailers.

Gracie Emeny, knowledge exchange manager at AHDB said, “There is a huge opportunity to improve biopesticide performance by helping to increase growers’ knowledge in this area. Clear guidance needs to be given to growers to help them get the best from biopesticides and improve their IPDM programmes, particularly as the conventional chemical options available to them continue to reduce. A key part of AMBER will be sharing knowledge and experience from the trials with growers and the industry to improve best practice guidelines.”

AMBER trials will now focus on developing practices that optimise biopesticide performance and will be tested on commercial nurseries.

A new website has just been launched to keep growers updated with all the AMBER project news. It also contains useful information for anyone looking to find out more about biopesticides.

Visit bit.ly/AMBERproject. ■

Canadian Farmers Seeking New Crops Could Consider Growing Okra

Publication date: 6/26/2017.

by Lilian Schaer for Ag Innovation Ontario.

Editor's Note: Farmers interested in adding a new crop to their production line-up may want to look at okra as an opportunity.

That's according to researchers at Vineland Research and Innovation Centre (Vineland) who have been working with the crop for the past five years and have some very promising results from two years of field trials with three okra varieties.

"We know okra can be grown commercially in southern Ontario and that yields of 20,000 kg per hectare are possible," said Vineland research scientist Dr. Viliam Zvalo.

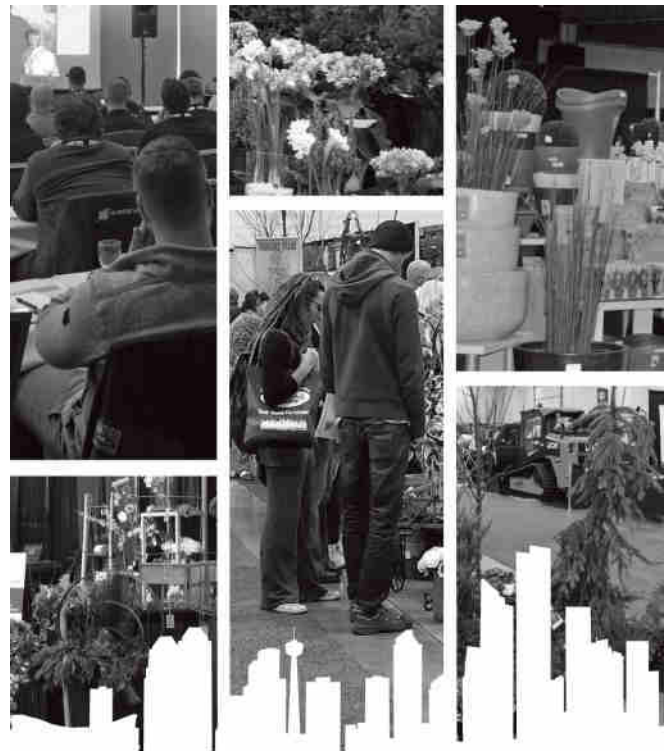


Dr. Viliam Zvalo. Photos: AgInnovation Ontario

Canada imported over six million kilograms of okra in 2015 – an increase of 43 per cent since 2011 – so the market demand for this new crop, popular especially in South and Southeast Asian cuisine, is there.

Zvalo is particularly excited about three additional varieties Vineland has been able to source from East West Seeds from Thailand. The company is a key player in the okra seed market in countries like India, the Philippines, Malaysia and Thailand where much of the world's okra is grown.

"We planted some of these varieties in June last year and were amazed by the yield potential," he said. "I believe they may outperform the varieties we've been using so far and we are quite optimistic they'll do very well here."



GISC
GREEN INDUSTRY
SHOW & CONFERENCE

November 16 & 17, 2017
BMO Centre, Calgary, AB

SAVE THE DATE!

Industry-leading workshops and seminars for landscape, turf, tree, nursery, greenhouse and garden centre professionals.

Plus the largest industry tradeshow on the Prairies!

1-800-378-3198
www.greenindustryshow.com

NEW CROP OPTIONS

Okra grows well in Canada's hot summers but less is known about its performance in cooler, wet weather. However, Zvalo believes these new Asian varieties, which are developed for the cooler monsoon season, should perform well in Canada. Also, one variety is slower to mature than others, which means it needs to be harvested only every two or three days.

"Normally okra has to be picked daily to keep it from over-ripening and becoming woody, so this would give growers a bit of a buffer at harvest time," he said.

Retail support for the new crop has been strong with prices for growers averaging \$2.50 – \$2.60 per pound. The key to getting into the okra business, though, is knowing the market, believes Zvalo.

"Big retailers are very interested in locally-grown okra, but are unlikely to deal with growers who only grow half an acre," he said. "And if you're harvesting and shipping daily, you need to be reasonably close to the market to get the crop there on time and be cost-competitive."

For those interested in experimenting with okra, Vineland will provide a small quantity of seeds per variety as well as technical assistance related to growing the crop. This lets growers see first-hand how the varieties perform in their particular climate and soil.



Photo: AgInnovation Ontario

According to Zvalo, the crop will grow reasonably well in areas of 2700 – 3300 crop heat units and growers in Ontario, Quebec, British Columbia and Manitoba are trialing all six of the varieties this year.

Vineland has been conducting okra research on optimal plant spacing, fertilization, use of covers in early spring as well as the impact on yield potential of direct seeding versus transplanting. More information is at <http://vinelandresearch.com/program/feeding-diversity-bringing-world-crops-market>.

"I think the okra story is definitely more promising today than it was just a few years ago," Zvalo said.

Vineland's okra research is funded in part by Growing Forward 2, a federal-provincial-territorial initiative, through the AgriInnovation Program. ■

CLAIMS

Caution - AAFC Closely Monitoring AgriStability Claims

It has recently come to light that Agriculture and Agri-Food Canada (AAFC) has been tracking the use of Business Risk Management tools by farmers. In particular, AAFC has been interested in knowing when an AgriStability claim has been submitted, and whether these growers have been accessing their AgriInvest accounts first when they have a serious loss of reference margin.

In government's view, when disaster strikes, a grower should first access AgriInsurance, if they have it, and then AgriInvest. A grower should only submit an AgriStability claim once these two resources have been leveraged.

The tracking suggests that the opposite is occurring. AAFC officials are increasingly concerned that many growers who trigger AgriStability do not use money in their AgriInvest accounts first. This situation is broad across various

crop types and sectors. At present, AgriInvest account balances are at \$2 billion, which includes grower and gov't funds. The fund balances appear to have stabilized for now but, if they continue to grow, difficulties may arise.

For those who remember, we lost the Net Income Stabilization Account (NISA) program in 2009 when account balances reached \$3 billion. CHC would also like to point out that it is very difficult to request that gov't return AgriStability and AgriInvest contributions to previous levels if the programs are not used adequately.

AAFC is flagging this issue. Please review carefully how you are using these tools, and consider that there may be better investment opportunities than storing funds in AgriInvest, and take action as you deem appropriate. ■

Biocontrols: A Practical Option for Cannabis

Published May 20, 2017 By: Janeen Wright

If there was a take home message from the cannabis session at the Biocontrols USA West 2017 Conference & Expo, held in Reno, NV, on March 2-3, it was that cannabis is a gray area in regard to chemical pest management. With virtually no labeled traditional chemistry available, more cannabis growers are looking to biocontrols for solutions.

Some of the discussions during the cannabis session centered on the challenges cannabis growers have with accessing and using chemical products for pest control. Regulations for the use of chemical products vary from state to state, and the list of acceptable products is often too short for growers liking. It is also becoming more common to test cannabis products for residues. If a product tests positive, dispensaries might reject it.

“Some dispensaries set their own rules for which residues are allowed, but in the very near future, the government may regulate which products are acceptable,” says Robert Starnes, Senior Superintendent of Agriculture at the University of California, Davis (UC Davis) in the Department of Entomology and President of Shale Peak Horticulture. “Even if a product is generally regarded as safe but banned from cannabis use, these residues will be discovered and the product rejected for sale.”

While these roadblocks and others challenge cannabis growers, biocontrols may present a golden learning opportunity.

Dr. Raymond Cloyd, a Professor in the Department of Entomology at Kansas State University, says the industry could overlook its chance to learn how to make biocontrols more functional if it gets distracted by focusing too much on the complexities and regulatory issues surrounding chemical pesticides.

“We know a lot about biologicals with other cropping systems,” Cloyd says. “This is a great opportunity to succeed using a biological control program to regulate specific insect and mite pests.”

Accurate Education, Real-World Trials Vital to Successful Pest Control

While more cannabis growers are embracing biocontrol use, others find it a challenge to implement these products in a program because they lack education of pest lifecycles and the principles of how resistance is acquired.

“Cannabis growers want to use biocontrols, but there are still many barriers to overcome in how to use these products correctly, where to buy them at reasonable prices, and how to get them on a timely basis,” says Bill Weigle, a horticultural consultant and retired greenhouse manager from Humboldt State University, who works with cannabis growers in California.

The problem isn't that growers looking for advice on how to tackle these problems require more sources to find information. Often, it's because reliable information is hard to come by in an industry with a reputation for relying on word of mouth and turning to snake-oil solutions.

The problem is two-fold: How can cannabis growers know they are using high-quality products, and how do they know they are getting good information?

Entomologist Suzanne Wainwright-Evans, Owner of Buglady Consulting, says when growers go to the wrong source for advice, they may end up misidentifying pests or spending their hard-earned money on products they don't need. At the moment, no one is scrutinizing what information comes out about pest management for cannabis crops. Real-world trials are needed, and they are difficult to do, she says.

“Cannabis growers need to be careful about who they talk to,” she says. “My advice is to find a reputable source of information. Look at that person's background, experience, and education. Ask yourself what gives them the authority to offer you advice. And make sure the science is there to back up their claims.”

How You Can Help

Starnes says he advises biopesticide manufacturers to work with groups like the IR-4 project. According to its website, since 1963 the IR-4 project has been a major resource for supplying pest management tools for specialty crop growers by developing research data to support new EPA tolerances and labeled product uses.

“Any product that makes a pesticide claim must be labeled by the EPA, and groups like IR-4 can help register products, usually in a quicker amount of time and for less money,” Starnes says.

And there's something else manufacturers and growers can do to help pull down the barriers to cannabis research — reach out to

universities.

In August of 2016, the DEA ended its monopoly on cannabis production for medical research, allowing researchers and drug companies to use cannabis grown in places other than its DEA facility at the University of Mississippi.

“It was illegal for universities to grow cannabis on campus, but recently the DEA announced it would allow universities to apply for a permit to grow cannabis,” Starnes says. “Many universities are hesitant to apply, but inquiries from the public and the business sector would show a need and possibly help move things forward.”

The Biocontrols Conference & Expo Series Expands to Four Events

The Biocontrols Conference & Expo, presented by Meister Media Worldwide, gives growers and pest control advisers the opportunity to explore new products, discuss their concerns, and learn more about the rapidly changing developments related to biocontrol technology.

Meister Media Worldwide, publisher of *Greenhouse Grower*, *American Vegetable Grower*, *American Fruit Grower*, *Western Fruit Grower*, and *Florida*

Grower, announced during its most recent event in March that the Biocontrols Conference & Expo will be expanding into a series of four events in 2017.

In addition to the just-completed USA West event, Meister will host the Biocontrols USA East 2017 Conference & Expo in Orlando, FL, October 12-13. This event will focus on the unique needs of growers in the eastern half of the U.S., and will be held in conjunction with BPIA. Two international events will also launch this year, including Biocontrols Africa in Cape Town, South Africa in July, and Biocontrols Mexico in Guadalajara in September. For more information, visit BiocontrolsConference.com. ■

5 Factors to Consider When Expanding Into Cannabis

Originally published June 28, 2017, By Mike Kovalycsik, Delta T Solutions

Cannabis is a unique product, but successfully and profitably growing it is very much a business. To succeed and achieve maximum profitability, the operation has to be efficient. To be efficient, the owners need to plan carefully, budget appropriately, and rely on experts for guidance. This is especially true for growing cannabis indoors.

“Professional growers need to realize that growing in a 20,000-square-foot warehouse is not the same as growing in your father’s basement,” says Ron Berkhout, Sales of VRE Systems, Grassie, Ontario, Canada. “I advise growers who are starting out to take a long-term, rather than short-term approach. This means talking to experts.”

Berkhout recommends growers carefully consider the following steps to develop a sound business plan and make sure their indoor growing operation gets off on the right foot.

1. Select the Right Strain to Grow for Your Market — Then Specialize

“Depending on where your operation is located, there are different regulations on growing,” Berkhout says. “For instance, some states may regulate the operation by plant count or canopy space. This affects the operation.”

Berkhout also stresses that different cannabis strains require different growing techniques and equipment.

“The best operations bridge the gap between cannabis and horticultural growing. I recommend you find a good cannabis growing expert, as well as an



experienced horticultural grower who knows how to grow the crop efficiently.”

2. Expect the Unexpected in Budgeting

“Many people think they can start out on a shoestring budget, but in my experience, that never seems to work out,” Berkhout says. “It takes more money than you may expect for a

startup. If you're growing 20,000 square feet, you have to be willing to spend a couple million dollars. To do something properly always costs more up front, but it saves money in the long run."

Consider the use of automated equipment versus manual labor, he says. Many people think it is cheaper at first to pay for manual labor, but labor is a constant, ongoing cost (and usually the most expensive cost) in the operation.

"If you're in it for the long haul, you'll realize that while the up-front cost of automated equipment is more, you'll save money over time when you don't need as many workers," Berkhout says.

3. Find a Location That Works

Not all locations are created equal. Many areas have numerous regulations regarding cannabis production, security, utility use, renovations, and more. It's imperative to understand how these can affect your operation.

"When you look long-term, you need to ensure you will have enough power, gas, water rights, etc. when you are ready to expand," Berkhout says.

Selecting the right building can be complicated, so Berkhout recommends talking to appropriate local real estate and regulation experts. If you're looking into an existing building, you may also want to have a structural engineer and/or electrical engineer check it out.

Berkhout prefers building new to renovating an existing building, simply because it is usually cheaper to build new than to renovate later. However, if you do select an existing building,

he recommends making sure it is large enough for future expansion and renovating up front if possible, so it is ready to expand when the time comes.

4. Talk to Experts, Experts, and More Experts

"When I work with new growers, I ask them if they want a Honda Civic operation, a Porsche operation, or a Maserati operation, because each has different options depending on the budget," Berkhout says. "I tell them to be open-minded and talk to as many experts and vendors as possible so they know what they want and what they can get for their money."

"The best thing a grower can do is find good experts they can trust: Electrical and structural engineers, horticultural growers, lighting experts, control experts, benching experts, and management experts," he adds.

5. Professionalize Your Operation

Good equipment is the key to an efficient and profitable growing operation, and it requires investment. Berkhout notes that some equipment can be leased. Efficient growing means faster crop turns and that means more money.

"Equipment is like Legos — you can buy basic and add on from there when you're ready," he says.

Berkhout recommends basic equipment investments like these that will get an indoor growing operation off to a good start:

- **Lighting** — This is critical to growing indoors, so find a good lighting expert and trust their expertise, he explains. "Lighting companies will design customized layouts for your operation to provide the right amount of light, as well as the right spectrum for growing."
- **HVAC systems** — The right growing temperature, humidity, and cooling all play a major role in keeping an indoor cannabis crop consistently healthy and vibrant. Some growers are moving beyond basic HVAC systems into specialized temperature and cooling systems for growing in the unique indoor environment, according to Berkhout.
- **Rolling benches** — These bench systems maximize a grower's space (always a concern in growing) and help cut labor costs dramatically.
- **Automated irrigation** — Another critical labor-saving element that helps you grow consistent crops efficiently.
- **Environmental control systems** — Monitor and precisely control the growing environment to make sure your crop stays healthy and robust.

Read the [complete version of this article here](#) and [email Delta T](#) or go to [DeltaTSolutions.com](#) for more information. ■

Applications are now being accepted for the Dr. Mirza Educational Scholarship.

The AGGA awards two \$500.00 scholarships annually to children of AGGA grower members who are full-time post-secondary school students.

Email the AGGA office at: member_services.ca for a copy of the application form and eligibility rules.

APPLY NOW

5 Things Cannabis Growers Should Look For In A Light Deprivation System

Publication Date: June 2017, Greenhouse Grower Magazine. Posted By: Brian Sparks

Greenhouses are many times more energy-efficient for cannabis production than indoor grow warehouses, and can provide precise environmental control, according to Lindsey Schiller, co-founder of Ceres, a greenhouse solutions provider. Essential to control is a light deprivation system, which allows growers to control the photoperiod, allowing for the 12/12 cycle required by flowering cannabis crops. [A recent article written by Schiller on Ceres' website](#) suggests five things cannabis growers should look for in a light deprivation system.

1. Automation. Most advanced, hybrid cannabis greenhouses use automated light deprivation systems to precisely control the day length. Some cannabis growers — mainly residential growers or three-season greenhouses — use hand-operated systems. In this case, the curtains are pulled open/closed twice a day. As the industry evolves toward larger hybrid cannabis greenhouses with precise environmental control, automation will continue to be the norm for commercial greenhouses. Automated systems such as smart controllers monitor many variables. For example, a control system monitors indoor light levels, and will turn on the supplementary lights accordingly. Based on the time of day, it could also close the greenhouse light deprivation system based on set parameters.

Black-out systems can also be operated based on indoor temperature and seasonal conditions. In this way, the grower has a huge amount of control over the indoor environment and light levels. While automation does add significant cost, the return of many crops in a year allows for a very high ROI and quick payback.

2. Complete Blackout. If a light deprivation system is installed correctly, a cannabis greenhouse should achieve more than 99% light reduction, meaning almost complete darkness. While horticulturists continue to study cannabis' required darkness levels, it's important to consider what you can do to ensure your system reduces light as much as possible. Light leakage comes from two sources: pinhole size gaps in the fabric, and cracks at the edges (where the system should seal to the greenhouse frame). The 'pinhole effect' can be easily countered by using a fabric with multiple layers.

Far more challenging is light leakage that occurs around the edges of the greenhouse frame. This occurs when a light deprivation system is poorly installed or designed and does not fit tightly to the frame. To avoid this, ensure that your greenhouse designer / builder knows what light deprivation system you are using. It's helpful if the greenhouse company designs and sources the system, or works directly with the light deprivation manufacturer.

3. Correct Install. The design and installation of the system determines its effectiveness at blocking light. If growing in a year round cannabis greenhouse, light deprivation systems are not an area to skimp. Choose a manufacturer with many years in the business, and one that also offers environmental controls. It is also helpful to use a greenhouse designer that

specializes in commercial cannabis greenhouses, and knows how to tailor a greenhouse design to easily integrate with a light deprivation system.

4. Sidewalls. Most light deprivation systems easily close over the greenhouse roof. Things get trickier when you consider the sidewalls of the greenhouse, which are often irregularly shaped due to the slope of the structure.

Customizing a blackout system to fit perfectly over the sidewalls is challenging, and thus these areas are the most prone to light leakage. Whether growing in a hoop house or year-round greenhouse, sidewalls can be the weak link in an otherwise effective light deprivation system. Consider them early on in your custom greenhouse design and when selecting your system. Ask your greenhouse designer how they plan to accommodate the sidewalls of the greenhouse.

5. Energy-Efficiency. A University of Wisconsin study found that a year-round commercial greenhouse with thermal curtains has an average of 60% lower energy costs. In a commercial cannabis greenhouse, light deprivation systems can double as a thermal curtain, providing both light deprivation and energy savings.

Blackout fabrics can make a greenhouse more energy-efficient by integrating a layer of aluminized fabric, which reflects infrared radiation (heat). On hot summer days, the light deprivation fabrics reflect heat away from the greenhouse, reducing heat gain and the need for cooling. On cold nights, the curtains trap heat inside the greenhouse, reducing the need for heating.

[The complete article from Ceres.](#) ■

High-tech Greenhouse to Grow Magrath Economy

Published by Lethbridge Herald on June 5, 2017. J.W. Schnarr, Lethbridge Herald — Magrath

A new greenhouse facility which recently broke ground in Magrath might seem like science fiction, but could soon be supplying Lethbridge with 20% of the city's daily fruit and vegetable requirement.

Starfield Centre Magrath is developing the first of what they hope will be many facilities in southern Alberta utilizing green energy and high-end technology to grow year-round polyculture crops with a minimal carbon footprint needed to get the food to market.

"We're one of a kind," said Leif Fossheim, the company's chief of science officer. "There's nothing out there like us."

The facility is expected to be completed in the next two years and could provide about 100 jobs to Magrath.

According to their website, the plan for Starfield Centre Magrath is to be a flagship facility involving production in a state-of-the-art farm, a plant and water research facility, a kindergarten to Grade 12 education hub, a public ag-tourism visitor centre, and a demonstration project for the potential of the area.

In controlled environment greenhouses, a number of different technologies and growing strategies are to be implemented in order to allow for a year-round growing cycle. The facility at Magrath will include eight 5,000 square-metre greenhouses. "To translate that into Canadian terms, that's slightly more than three ice hockey rinks per greenhouse," said Alistair Gregor, president and CEO of Starfield Centre.

Magrath CAO Wade Alston said the community has a history of innovation in the agriculture sector, and that this greenhouse project is another example of that history. "We used to be known as the irrigation capital of Canada," he said, noting Magrath has also long been known as the Garden City.

"When this project came along, it looked like an ideal fit. We used to have a large food processing plant here in Magrath, and we're very much an agriculture-based community."

Fossheim said while greenhouse technology has essentially remained unchanged for hundreds of years, the greenhouses at Starfield are a result of a ground-up redesign involving as many new technologies as possible. "One of the main focuses on these next-generation greenhouses is reliance on renewable energy for both heating and cooling," said Fossheim. "With the potential of climate change and carbon taxes, the more you move away from fossil fuel energy, the better you can produce a more stable and efficient food system."

Technology being used will include the use of geothermal and solar technology to provide energy, and special materials used as insulators to help regulate growing temperatures. The area around Magrath has significant geothermal energy available. "We're measuring 250 feet down for a baseline temperature

of 30 degrees Celsius," Fossheim said. "That's really unusual. We've got a geologist who is trying to figure out why. But we've basically hit gold for geothermal." Additional heat or cold will be stored in the ground using a type of "climate battery" to further regulate energy needs.

Gregor and Fossheim see their facilities growing in dozens of communities in the future — they have identified as many as 40 potential sites in southern Alberta alone. The facilities could provide opportunities for tomorrow's agriculture scientists and researchers to have a place close to home to work in their fields. "We call this integration of all these technologies the next generation of greenhouse," said Fossheim. "It's really a redesign of what a greenhouse is."

Another large component to the facility is the use of "Ag-IoT." IoT means "Internet of Things," the development of the internet to operate outside the world of computers and create a world of everyday items communicating digitally both with humanity and with itself. Many see this as the next level of automation.

"Every one of these greenhouses is basically one massive robot," said Gregor. "Even though we have human inputs, we have sensors throughout the entire greenhouse." In essence, the greenhouses become large research-and-development facilities as new technology is added when it becomes available.

Gregor sees opportunities for working with Alberta's technology leaders as well as researchers in other universities to provide opportunities to put

.....Continued on page 19

AGGA BOARD OF DIRECTORS & OTHER CONTACTS



PRESIDENT – Debbie Foisy
 Deb's Greenhouse & U-Pick Raspberry
 25505 Sec Hwy 642
 Sturgeon County, AB T8R 2A3
 Ph: 780-939-9690
 Email: debfoisy@agga.ca



DIRECTOR – Carmen Sim
 Country Gardens and Greenhouse
 RR 1
 Ponoka, AB T4J 1R1
 Ph: 403-704-4145
 Email: carmen@country-gardens.ca



VICE PRESIDENT – Albert Cramer
 Rolling Acres Greenhouses Ltd.
 Box 1252
 Redcliff, AB T0J 2P0
 Ph: 403-526-3059
 Email: albertcramer@agga.ca



Director – Dustin Morton
 Alberta Agriculture & Forestry
 4910 - 52 Street
 Camrose, AB T4V 2V4
 Ph: 780-679-1314
 dustin.morton@gov.ab.ca



TREASURER – Paul Doef
 Doef's Greenhouses Ltd.
 Site 1, Box 14, RR 3
 Lacombe, AB T4L 2N3
 Ph: 403-782-2704
 Email: pauldoef@agga.ca



DIRECTOR – Cees VandenEnden
 HortiSource Consulting Ltd.
 PO Box 186
 Water Valley, AB T0M 2E0
 Ph: 403-637-2775
 Email: ceesvandenenden@agga.ca



SECRETARY – Jeff Stigter
 JAMCO Growers Ltd.
 Box 1082
 Redcliff, AB T0J 2P0
 Ph: 403-548-1797
 Email: mj.stigter@hotmail.com



DIRECTOR – Kim Wickwire
 Olds College
 4500-50 Street
 Olds, AB T4H 1R6
 Ph: 403-556-8288
 Email: kwickwire@agga.ca



PAST PRESIDENT – Michiel Verheul
 High Q Greenhouses
 55431 RR 262
 Sturgeon County, AB T8R 0W7
 Ph: 780-939-7490
 Email: michielverheul@agga.ca



DIRECTOR – Paul Schlacht
 TerraLink Horticulture Inc.
 Bay R, 1350-42 Ave SE
 Calgary, AB T2G 4V6
 Ph: (403) 993-4972
 pauls@tlhort.com



DIRECTOR – Dietrich Kuhlmann
 Kuhlmann's Market Gardens & Ghs Ltd.
 1320 - 167 Avenue NW
 Edmonton, AB T5Y 6L6
 Ph: 780-475-7500
 Email: dietrichkuhlmann@agga.ca



DIRECTOR – Jason Andersen
 Kathy's Greenhouse
 Box 446 Hwy 897 & Twp 514
 Kitscoty, AB T0B 2P0
 Ph: (780) 847-2586
 Email: kathysgreenhouse@xplornet.ca



DIRECTOR – Nadine Stielow
 Thiels Greenhouses Ltd.
 Box 196
 Bruderheim AB T0B 0S0
 Ph: 780-796-3501
 Email: nadinestielow@agga.ca



**NEWSLETTER EDITOR, CONSULTANT
 Dr. Mohyuddin Mirza**
 Edmonton, AB
 Ph: 780-885-0652
 Email: mohyuddinmirza@agga.ca
 Email: drmirzagreen@gmail.com



DIRECTOR – Dawn Buschert
 Shirley's Greenhouse
 Box 11, Site 1, RR2
 Didsbury AB T0M 0W0
 Ph: 403-559-7438
 Email: shirleysgreenhouse@gmail.com

**WEBMASTER –
 Lynnette Westfall**
 Ph: 780-877-2547
 Fax: 780-877-2540
 Email: webmaster@agga.ca

**NEW MAILING ADDRESS
 Administration - Valerie Stobbe**
 c/o Landscape Alberta
 18051-107 Ave. NW, Edmonton, AB T5S 1K3
 Ph: 1-800-378-3198 ext 103 OR 780-489-1991
 Fax: 780-444-2152
 Email: member_services@agga.ca

AGGA AWARD NOMINATIONS

SCHOLARSHIP

Do you have a child entering or continuing at a post-secondary institution this fall? The **AGGA Scholarship Foundation** funds two \$500.00 bursary's every year to the child of an AGGA member attending a college, university or institute of technology in any discipline.

RECOGNITION

The **Herb Knodel Award** is bestowed upon a distinguished Alberta greenhouse grower for their contribution to the Alberta Greenhouse Grower's Association. If you know of a grower that has served the industry well over the years, nominate them for this prestigious award.

The **Grower of the Year Award** recognizes active grower members for their innovation, enterprise, hard work and accomplishment in the field of greenhouse production and retail. If you know of a colleague or co-worker that is deserving of recognition, please consider nominating them.

The **Meritorious Service Award** is presented to individuals for their excellent service, contribution and dedication to the Alberta greenhouse industry who are not growers, but who have contributed to the industry, primarily in the area of research.

Deadline for applications is October 15, 2017.

For a scholarship application form or for complete nomination information contact the office at: member_services@agga.ca



AGGA Newsletter is published quarterly by the Alberta Greenhouse Growers Association (AGGA)

EDITOR

Dr. Mohyuddin Mirza
mohyuddinmirza.agga.ca or dmirzagreen@gmail.com
 Ph: 780-885-0652

NEW ADDRESS AS OF APRIL 17, 2017

**18051-107 AVENUE NW,
 EDMONTON, AB T5S 1K3**

Ph: 780-489-1991 Toll Free: 1-800-378-3198 Fax: 780-444-2152

Information in this newsletter is provided in good faith and no liability is assumed or implied.

High Tech Greenhouse, continued from page 17

their research and technology into a real-world application on an industrial scale.

"This really fits with the Magrath brand," Alston said. "It's an ideal fit in terms of being consistent with our history. We try to promote Magrath as an oasis-like community and as a green community. All of these things are consistent with (Starfield's) vision."

"Around the world, we've taken best-case scenarios and best-use products and have brought them altogether to be used in one facility," said Gregor. "We have a multi-faceted approach to looking at best practices, best use, and best products, and really bringing them together."

Greenhouse Resource Extension Assistance Team

- Dr. Mohyuddin Mirza - lead, AGGA
- Dr. Kwesi Ampong-Nyarko, Alberta
- Dr. Ken Fry, Olds College
- Dr. Ron Howard, ARD
- Rob Spencer, ARD
- Dr. Nick Savidov, ARD
- Kim Wickwire, Olds College
- Dr. John Zhang, ARD
- Dustin Mortin, ARD
- Emmanuel Anum Laate, ARD

Advertising Rates

Classified Ads:

Grower Members: Free
Non-Members: \$10.00 per ad. (up to 25 words)

Display Ads

Members:
 Business card \$15.00
 1/4 page \$35.00
 1/2 page \$50.00
 Full page \$90.00

Non-Members:
 Business card \$30.00
 1/4 page \$70.00
 1/2 page \$100.00
 Full page \$180.00

Full Inserts (per sheet)

Members:
 Single sided \$75.00
 Double sided \$125.00

Non-Members:
 Single sided \$150.00
 Double sided \$250.00

*Prices are for camera ready artwork only in word format
 Non-camera ready ads will be extra.*

"Why try to explain miracles to your children when you can just have them plant a garden."

- Robert Brault -

NEW MEMBER APPLICATION FORM ♦ 2016-Sept 30, 2017

NEW MEMBERS – COMPLETE THIS AREA

NEW GROWER MEMBERSHIP (first year or part thereof) \$125.00 + \$6.25 GST = **\$131.25**

Grower rates after first year based on square footage.	Up to 5,000 sq. ft. \$125.00 + \$6.25 = \$131.25	5,001-15,000 sq. ft. 275.00 + 13.75 = \$288.75	15,001-45,000 sq. ft. \$375.00 + 18.75 = \$393.75	Over 45,000 sq. ft. \$475.00 + 23.75 = \$498.75
--	---	---	--	--

<input type="checkbox"/> Allied Trades \$220.00 + \$11.00 GST = \$231.00	<input type="checkbox"/> Associate \$70.00 + \$3.50 GST = \$73.50	<input type="checkbox"/> Individual \$70.00 + \$3.50 GST = \$73.50	<input type="checkbox"/> Student – COMPLIMENTARY <small>(See requirements below)</small>
---	--	---	--

- Grower:** Business growing commercial crops in a controlled environment, including garden centers.
- Allied Trades:** Business involved in the sale of products or services related to greenhouse crops.
- Associate:** Individual who represents an educational, research, extension or government agency.
- Individual:** Individual involved in or has an interest in horticulture, who is not employed by a company that is eligible for membership.
- Student:** Person studying horticulture full-time at a post-secondary institution. *(Registration required each year.)*

GROWERS	ALLIED TRADES				
<table border="1" style="width: 100%;"> <tr> <th style="background-color: #e0e0e0;">GROWERS REQUIRED INFORMATION</th> <th style="background-color: #e0e0e0;">WEB SITE INFORMATION</th> </tr> <tr> <td> *Receive newsletter via: <input type="checkbox"/> Mail <input type="checkbox"/> Email <input type="checkbox"/> Both *Type of Operation: <input type="checkbox"/> Wholesale <input type="checkbox"/> Retail *Greenhouse Area in sq. ft. _____ *Operation Schedule: <input type="checkbox"/> Year Round <input type="checkbox"/> Seasonal Business Hours: _____ *RedHat Co-op member? <input type="checkbox"/> Yes <input type="checkbox"/> No <small>*Required fields.</small> </td> <td> Have your company information listed on the AGGA website: www.agga.ca <input type="checkbox"/> List my Web site Address <input type="checkbox"/> List on Retail Map <input type="checkbox"/> List in Wholesale Buyers Guide <u>For Retail Map –brief location description</u> _____ _____ </td> </tr> </table>	GROWERS REQUIRED INFORMATION	WEB SITE INFORMATION	*Receive newsletter via: <input type="checkbox"/> Mail <input type="checkbox"/> Email <input type="checkbox"/> Both *Type of Operation: <input type="checkbox"/> Wholesale <input type="checkbox"/> Retail *Greenhouse Area in sq. ft. _____ *Operation Schedule: <input type="checkbox"/> Year Round <input type="checkbox"/> Seasonal Business Hours: _____ *RedHat Co-op member? <input type="checkbox"/> Yes <input type="checkbox"/> No <small>*Required fields.</small>	Have your company information listed on the AGGA website: www.agga.ca <input type="checkbox"/> List my Web site Address <input type="checkbox"/> List on Retail Map <input type="checkbox"/> List in Wholesale Buyers Guide <u>For Retail Map –brief location description</u> _____ _____	Please list the products or services you provide to growers: _____ _____ _____ _____ _____
GROWERS REQUIRED INFORMATION	WEB SITE INFORMATION				
*Receive newsletter via: <input type="checkbox"/> Mail <input type="checkbox"/> Email <input type="checkbox"/> Both *Type of Operation: <input type="checkbox"/> Wholesale <input type="checkbox"/> Retail *Greenhouse Area in sq. ft. _____ *Operation Schedule: <input type="checkbox"/> Year Round <input type="checkbox"/> Seasonal Business Hours: _____ *RedHat Co-op member? <input type="checkbox"/> Yes <input type="checkbox"/> No <small>*Required fields.</small>	Have your company information listed on the AGGA website: www.agga.ca <input type="checkbox"/> List my Web site Address <input type="checkbox"/> List on Retail Map <input type="checkbox"/> List in Wholesale Buyers Guide <u>For Retail Map –brief location description</u> _____ _____				

CROPS GROWN – Please Complete

Produce: <input type="checkbox"/> Cucumbers <input type="checkbox"/> Tomatoes <input type="checkbox"/> Peppers _____	Garden Plants: <input type="checkbox"/> Annuals <input type="checkbox"/> Cuttings/Seedlings <input type="checkbox"/> Perennials <input type="checkbox"/> Other <input type="checkbox"/> Shrubs _____ <input type="checkbox"/> Trees _____	Floral: <input type="checkbox"/> Cut Flowers <input type="checkbox"/> Potted Flowers <input type="checkbox"/> Tropical Plants
---	--	---

CONTACT INFORMATION

COMPANY NAME: _____

CONTACT: (First & Last name) _____
(Please Note: Only one name per company will be entered into our database.)

MAILING ADDRESS: _____

CITY: _____ PROVINCE: _____ POSTAL CODE: _____

TELEPHONE: _____ FAX: _____

EMAIL: _____

WEB SITE: _____

PAYMENT OPTIONS

VISA MasterCard Cheque (payable to the AGGA)

Card number _____ Expiry Date ____/____

Name on card (print) _____ Signature _____

Email receipt to: _____

By submitting your application for membership, you hereby authorize and expressly consent to the Alberta Greenhouse Growers Association (AGGA) collecting, using, or disclosing your personal information as permitted pursuant to relevant privacy laws, and to provide such information to third parties as required in the operation of the Association. A copy of the Association's privacy policy is available by contacting AGGA at 1-800-378-3198. **GST # 119402196**

cityFARMed



**Interested in producing food commercially?
Want to learn more about small scale farming in the city?**



Check out these two field days with Alberta Agriculture and Forestry as we tour some of the leading urban farms in Alberta. You'll learn best practices for producing food for profit in the city, some of the challenges involved, and navigating relationships with neighbours. Time to network and ask questions abound!

Registration Information

Dates: **Tuesday, August 1, 2017**
Edmonton
Registration deadline – July 25

Tuesday, September 12, 2017
Calgary
Registration deadline – September 5

Time: Registration – 11:30 a.m.
Lunch – 12 noon
Tour Start – 1 p.m.
(Lunch and snacks provided)

Cost: FREE

To register
call the Ag-Info Centre at

1-800-387-6030