

The Greenhouse Business

GREENHOUSE BUSINESS IS READY TO ROLL AGAIN

Mohyuddin Mirza

Many requests have been received to continue publishing The Greenhouse Business Newsletter. Officially, I retired in October 2008 from Alberta Agriculture and Rural Development (ARD) but my roots are with the greenhouse industry. Now I have agreed to work with the Alberta Greenhouse Growers Association (AGGA) as a consultant for industry development and assist with member's problems and solution. To widen these relationships with the industry, I discussed this with many colleagues, the ways and means to continue publication of this newsletter. Your phone calls show that this was a good publication and there is an interest to continue The Greenhouse Business Newsletter. So we have "revived" the Greenhouse Resource Extension Assistance Team, GREAT and agreed that we will publish this newsletter. This will be a good example of cooperation between ARD and an ex-employee who is grateful for his work with the department. Every effort will be made to provide you with good decision making information. It will be published on a quarterly basis. Nabi Chaudhary has agreed to look after the publication part.



Mark your Calendar

The Greenhouse Industry Show & Conference

November 19 & 20, 2009

Shaw Conference Centre

9797 Jasper Ave.

Edmonton, Alberta

What's In this Issue?

- ◆ Greenhouse Business Is Ready To Roll Again Pg 1
- ◆ So What Is Going On Around The Industry? Pg 2
- ◆ Scientific Research and Education Development Tax Incentive Program Pg 3
- ◆ Factors Affecting pH and E.C. of the Growing Media Pg 4
- ◆ Growing Forward Pg 5
- ◆ Direction of Natural Gas Prices? Pg 10

SO WHAT IS GOING ON AROUND THE INDUSTRY?

Mohyuddin Mirza

Bedding Plants and Ornamentals:

April is the most exciting part for this sector of the industry. This is the time when plants are in bloom and sales have started for the “spring itchy” consumers. The greenhouses I visited are full of geraniums, pansies, petunias, asters and many other plants both in cell packs and in hanging baskets. The types of containers in which plants are grown keep on changing constantly. It appears that this will be another big year for the containers. Consumers like to buy plants which are already blooming, so that there is instant gratification. In the time of stress, different coloured flowers provide a good relief. People have preferences for colors, so many times growers try to blend many colors in the same pot.

This year, I am expecting more vegetable containers. Besides traditional patio tomatoes, I have seen mini cucumbers trained on trellis, peppers and lettuce. Many growers have reported great success with simple 3-5 litre containers with 3 lettuce plants inside. So it all depends on your imagination. Remember that it is important to maintain good fruit set and leaf quality on these containers.



Few issues here and there are seen. This is iron deficiency in petunia caused by an alkaline pH in the growing medium. Basically the plants themselves change the pH of the growing medium

towards alkalinity. Plants like geraniums change the pH towards more acidic side. So growers must adjust their fertilizing practices so that pH of the solution is according to plant conditions. Consumers would not pick up these plants. They like to buy good, uniformly green leaved plants.

Vegetables:

Harvest of good quality cucumber started in early February on December planted crops. There were good production volumes in December and January from lighted crops. Tomato harvest started in March and good volumes are reported. Fruit from Mexico is still available in marketplace. Green peppers started to be harvested in March and now coloured peppers started in April.

A fruit problem was noticed with cucumbers where blossom end started turning soft and mushy. It was seen in cucumbers coming from Mexico as well. It appears that problem was related to the fact when 24 hours temperature is kept over 22-23C in order to fill the cucumbers faster and also over watering practices. Growers should take note of the fact that cucumbers require a growth balance between vegetative and generative, not that one stage should dominate over the other.

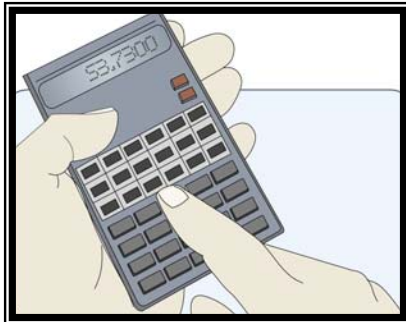
When generative growth dominates over vegetative, the fruit skin can become weaker especially the blossom end. When growers harvest mature fruit they should check out the maturity of fruit at the blossom end not just towards the stem end. Extreme temperature fluctuations during storage and transportation can also contribute towards this problem.

SCIENTIFIC RESEARCH AND EDUCATION DEVELOPMENT TAX INCENTIVE PROGRAM

Nabi Chaudhary and Mohyuddin Mirza

Alberta Greenhouse Growers Association helped to organize two workshops in January to provide information to growers on this largest single source of federal government support for industrial R & D in Canada. This information is gleaned from the presentations made by Dr. Basu Gantotti and Kevin Gibson.

The objective of the SR&ED tax incentive program is to encourage Canadian businesses of all sizes to conduct research and development (R&D) in Canada. Controlled Environment Crop Production Sector is included in this program.



It is important to understand what activities and projects are eligible for this tax incentive.

Controlled environment crop production sector includes crops grown in green-

houses including vegetables, flowers and ornamentals, shade/cloche systems, mushroom production and nursery industries.

Work in the areas of greenhouse meets the definition of SR&ED when it is performed ‘for the purpose of achieving scientific or technological advancements using a systematic investigation or search by means of experiment or analysis.

Technological advancement is a key element of the program. It does not include the application of technology that is merely new to a particular taxpayer or industry. In particular, development work that uses available knowledge does not qualify as SR&ED.

Several examples were provided in the workshop to highlight what is eligible and what is not. Standard cultural management strategy, optimization of parameters like light, CO2 etc., management protocols bases on standard practices would not qualify as compared to planned systematic experimental work to address specific technological limitations or to advance technology.

Other aspects discussed included sample/plot size, direct labour, financial considerations, materials, documentations, multiparty SR&ED, check-off contributions and other eligible work.

This is the web address.

<http://www.cra-arc.gc.ca/sred/> There are many consultants in the marketplace as well. You can find them through web search.

Factors Affecting pH and E.C. of the Growing Media

Mohyuddin Mirza

Many questions are coming in regarding speckling of lower leaves of geraniums.



This is how it starts. Picture on your left hand show early symptoms of light color speckling and a dull green color. It slowly progresses and speckles merge with each other and then become necrotic. The picture on your right hand side is when pH is below 5.0 and entire plant is not sale-able. Look at the economic loss if you are not able to diagnose the problem early enough. Geraniums naturally cause growing medium to become acidic as they grow and combined with the use of acidic fertilizers, the pH starts dropping. With pH going on acidic side, the uptake of trace elements is considerably increased and toxicity occurs. This is attributed to iron toxicity. Let us look at factors which affect the pH of the growing medium:

- ◆ Potting media components and amendments. Peat moss and pine bark are acidic, vermiculite and perlite are neutral and limestone added to counteract acidic components.
- ◆ Plant species grown. Species that increase the pH of the potting medium include petunia, pansy, African marigold, annual vinca, zinnia, becaopa. Species that decrease potting media pH include geranium, begonia, celosia, dianthus, tomato
- ◆ High nitrate fertilizers raise pH, while high ammonium fertilizers lower pH.

- ◆ Irrigation water with higher levels of bicarbonates increases pH

Growers must watch the pH on a regular basis. Once pH has changed by one unit, it takes longer time to bring it back to the desired level. It is preferable to take pH reading 3 times a week during the month of April when plants are actively growing. If pH becomes acidic then growers can use potassium bicarbonate.

Media Electrical Conductivity (EC)

- ◆ EC is a measure of soluble salt contents in a growing medium, water or solution and is a good tool to mange crops. The sources of soluble salts in a growing medium include irrigation water, fertilizers, media components and amendments and fungicidal drenches.

Optimum EC for most of the bedding plants measured on a leach basis should be around 1.8 to 2.5 millimhos/cm. Media Electrical Conductivity (EC)

- ◆ Monitor EC on a regular basis especially during the rapid growing time of April.
- ◆ Higher EC ranges would cause water deficiency symptoms in bedding plants.
- ◆ Lower EC ranges would reflect nutrient starvation.

GROWING FORWARD

Nationally

Growing Forward is a fresh, new approach to creating a profitable and competitive agricultural sector in Canada.

Growing Forward Vision

A profitable and innovative agriculture, agri-food and agri-based products industry that seizes opportunities in responding to market demands and contributes to the health and well-being of Canadians.

Growing Forward Objectives:

- Focusing on building a competitive and innovative sector.
- Ensuring the sector contributes to society's priorities.
- Being proactive in managing risks.

Canada's agriculture sector has helped shape Growing Forward from the beginning, and we will continue to consult stakeholders to develop programs that work better, meet their needs and help them continue to create a sector that thrives.

www4.agr.gc.ca/AAFC-AAC/display-afficher.do?id=1200339470715&lang=eng

In Alberta

Alberta Agriculture is committed to cultivating the Growing Forward objectives that have been developed in partnership with Agriculture and Agri-Food Canada.

The Growing Forward team has developed a one-window approach to program delivery to make access easier for you. All programs are targeted to address at least one of the following key core outcomes:

- Profitable and competitive.
- Able to retain or capture domestic and international market opportunities.
- Prepared for and able to respond effectively to emergencies.
- Able to manage risk effectively.

Explore the website to find more information on each individual program. Complete the Self Assessment to learn about what programs are most relevant to you.

Think locally, grow globally

Growing Forward is a new commitment from Canada's Federal, Provincial and Territorial Ministers of Agriculture to develop an Agricultural Policy Framework that better positions the agriculture industry for success.

A new vision. A vibrant industry. Albertans have indicated that they want a profitable, competitive, market-oriented agriculture and agri-foods industry. The programs and people behind Growing Forward are here to assist.

With a suite of programs to choose from, Growing Forward offers something for your changing needs. Growing Forward opportunities are focused on building a sector that is:

- ◆ Profitable and competitive.
- ◆ Able to retain or capture domestic and international market opportunities.
- ◆ Prepared for and able to respond effectively to emergencies.
- ◆ Able to manage risk effectively.

We know that Alberta agriculture and the agri-food sector responds to society's priorities. Research shows that Albertans are increasingly health conscious and environmentally aware; Growing Forward programs are designed to support this progressive thinking.

The programs and services offered through Growing Forward are designed with you in mind. The approach to program delivery is simple and accessible. Alberta Agriculture and Rural Development has a vision to continue promoting our industry. Let us work together as we think locally and grow globally.

Bio-Security (Producer)

Bio-Security, a Growing Forward initiative to facilitate effective risk management.

Program Description

The Bio-Security program is designed to develop industry-wide standards to prevent the introduction of animal diseases into livestock operations and containment in the event of disease incursions. Containment relates to preventing transmission of infectious agents within and between livestock enterprises.

Promotion of bio-security engenders trust in the agri-food industry at all levels of trade, domestically and internationally.

Program Eligibility

The Bio-Security program is targeted at:

- ◆ Producers involved in primary agriculture and food production.

Note: presently only the poultry and mink industries have National Bio-security standards in place. Other livestock commodities have initiated activity directed to this end and may qualify if work can be clearly shown to be part of developing national.

- ◆ Animal health professionals and consultants assisting producers.

Available Funding

Assistance will be on a 50/50 cost shared basis with the applicant to a maximum of \$50,000 for capital items or \$25,000 for non-capital items.

Program Start Date

September 1, 2009.

Business Opportunity Grant

Business Opportunity Grant, a Growing Forward initiative to increase your profitability and strengthen your competitive position.

Program Description

The *Business Opportunity Grant* program is designed to provide assistance to Alberta primary agriculture producers, and small agri-business organizations in accessing one-to-one expertise that will contribute to helping their business adapt to the changing business environment. It is aimed at individuals and small business organizations that are looking to transform their operation to meet market and consumer demands. Contracting services such as, independent risk management consultants, advisory and business opportunity analysis services that will contribute to making informed and calculated business decisions will be supported.

Program Eligibility

The *Business Opportunity Grant* program is targeted at Alberta's primary agriculture producers, small agri-business and new entrants to the industry. Some of the projects/areas that funding may be used for include:

- ◆ Farm business financial assessments.
- ◆ Enterprise analysis and opportunity assessment.
- ◆ Benchmarking, feasibility studies, and opportunity/profitability assessments.
- ◆ New business - market research.
- ◆ Business management consultants/coaches.
- ◆ Business and marketing plans.
- ◆ Succession plans.
- ◆ Business structures and the legal and financial expenses associated with the business model formation.

Volume 8, No. 1**Available Funding**

Assistance will be provided on a cost shared basis up to 75/25 with the applicant, when individual producers or business are the sole beneficiary to a maximum of \$15,000 per applicant per year, or up to 90/10 government and the applicant when the project will benefit an organization, group or industry sector.

On-Farm Energy Management

On-Farm Energy Assessment, a Growing Forward initiative to increase your profitability and strengthen your competitive position.

Program Description

The *On-Farm Energy Assessment* is designed to achieve incremental energy efficiency in Alberta agricultural operations, resulting in cost savings, energy conservation, and reduced greenhouse gas emissions.

Program Eligibility

Alberta producers with \$10,000 gross farm income annually or new producers with a projected 3-year average gross farm income of \$10,000.

Available Funding

For assessment-recommended retrofits:

- ◆ 100% of purchase costs, up to the cost of the farm energy assessment; and
- ◆ 75% of purchase costs, beyond the cost of the farm energy assessment, up to \$50,000.

For new construction:

- ◆ 75% of purchase costs, as determined on a case-by-case basis.

For renewable energy technology:

- ◆ 75% of purchase costs, up to \$50,000.

How to Apply

You must first complete a work plan and submit it for approval prior to beginning work on projects.

Program Start Date

April 1, 2009.

Food Safety

Certification programs to ensure the safety of Canadian food products, building consumer confidence.

[Food Safety — OFFS \(Delivery Agent\)](#)

[Food Safety — OFFS \(Producer\)](#)

[Food Safety — Processing \(Delivery Agent\)](#)

[Food Safety — Processing \(Processor\)](#)

Leadership

Educational programs for Alberta leaders and managers to take their business to new levels.

[Leadership Development Grant](#)

Lean Manufacturing and Automation

Programs to implement technology and systems enabling Alberta producers and processors to increase efficiency and reduce costs.

Product and Market Development

Introducing value chain information systems to make Alberta food products more unique, competitive and profitable.

Traceability

Supply chain traceability and technologies that ensure Canada's leadership in animal health and food safety.

[RFID Technology Assistance](#)

[Traceability Pilot Project](#)

[Traceability Training Program](#)

Water Management

Support for programs and projects that enhance Alberta agri-business' long term water supply.

Please visit the website: <http://www.growingforward.alberta.ca> for program description; program eligibility, available funding and how to apply or:

Contact 310-FARM

GrowingForward@gov.ab.ca

Direction of Natural Gas Prices?

Nabi Chaudhary

Natural gas prices have also had extreme price swings as did domestic and global oil markets. Therefore, short term gas prices have come down significantly in part due to their historical tie with oil prices. (Short term price is what the media usually quotes). Some analysts suggest that a supply shortage is inevitable as low short term prices reduce the drilling of new wells.

Natural gas is traded as a commodity on the New York Mercantile Exchange. One thing to keep in mind is that natural gas in Canada is priced in US dollars, so if the Canadian dollar goes down, long term gas prices will go up. Also, because the Canadian economy is affected so much by gas prices, if the world price of gas goes up, the purchasing power of the Canadian dollar will go up, lessening the increase in gas prices.

Fundamentals of natural gas prices:

- Lower production from new gas wells, less new drilling and depletion of older wells.
- New electricity generation is usually gas fired.
- Supply is flat and is expected to remain so, and demand is up.
- During the summer of 2007 natural gas prices averaged about \$7 per GJ.
- By June 2008, natural gas futures jumped about 80 percent and hovered at or above \$13.
- In late July, prices began to decline, trading below \$9 in August.
- At the end of September, prices were in the \$7 to \$8 range.
- By the end of February 2009, prices were near \$4 per GJ off 70 percent from their 2008 peak.

Why are natural gas prices so volatile?

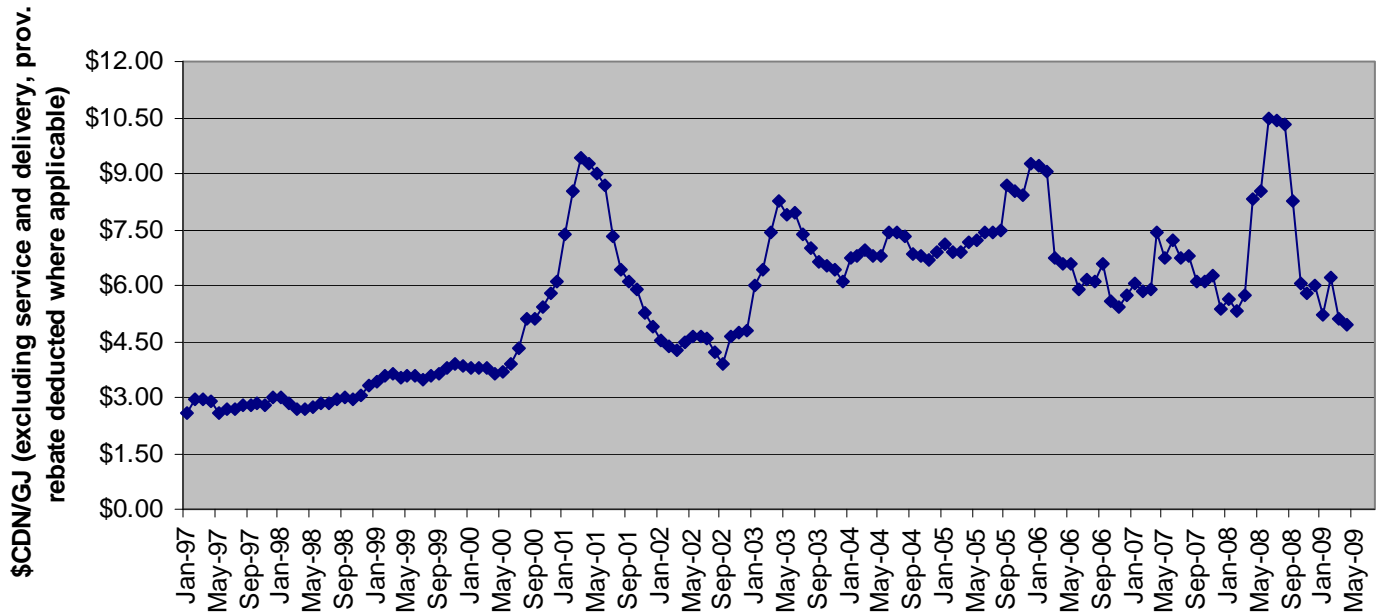
Natural gas is a worldwide commodity. The market's volatility is due to:

- Tighter supplies and global demand shift.
- Global tensions.
- High cost of competing fuels such as oil and propane.
- Decreasing natural gas supplies from Canada.
- Weather, such as extreme cold weather or hurricanes that may damage gas drilling or refining facilities.
- Increasing international demand for natural gas.

During the 2007/08 heating season, natural gas price in Alberta averaged around \$6.45 per GJ. Forecasters are projecting the natural gas price to be in the range of \$5 to \$7 GJ over the next several months; i.e. up to the fall of 2009.

The graph on the next page shows fluctuations in natural gas prices from January 1997 to May 2009 .

Alberta Monthly Average Farm Input Prices - Natural Gas, January 1997 to May 2009



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

The Greenhouse Business is a quarterly publication jointly produced by Alberta Agriculture and Rural Development and Dr. Mohyuddin Mirza.

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