



The Pollen Press

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INSIDE THIS ISSUE:

G63 vs Oil	2
Green Initiatives: Automatic Power Controller	2
Wellness News: Sodium	3
New HPLC	4
Natural Market-Place 2009	4
Employee Corner	4

FUTURE ISSUES:

New Spectrometer
Graminex Thailand
Green Initiatives: Recycling Program

UPCOMING EVENTS:

Corn City Festival 2009 August 22nd-23rd Deshler, Ohio
Healthy Ingredients Japan 2009 October 14th-16th Tokyo, Japan Booth # TBA
SupplySide West 2009 November 11th-13th Las Vegas, Nevada Booth # 24107

Graminex Russia



Nick Wagner, Alla Gomolko, Cynthia May, Frederick May and Colleen May in the Red Square

In March this year employees of Graminex LLC and family members traveled to Russia to meet with the partners of Graminex Russia. Graminex Russia has been a partner with Graminex LLC for more than 8 years. Valerie Kirillov and Alla Gomolko are the administrators of Graminex Russia. Graminex Russia

is the exclusive distributor for Graminex products in Russia. In our meetings we discussed new product launches, distribution and sales. It was very informative for both parties to be able to meet in person.

Once business was concluded, Alla Gomolko made special arrangements for us to see Moscow and St. Petersburg. In Moscow we toured the Red Square and the Kremlin. Attending the Russian circus and the ballet was a memorable experience. We traveled to St. Petersburg by train through the countryside. In St. Petersburg we were treated to a tour of the Hermitage and Catherine the Great's Summer Palace.

We would like to thank Graminex Russia for making our trip memorable and for arranging all of the activities. Graminex LLC is looking forward to a visit from Graminex Russia in November. Graminex LLC looks forward to a long and successful business relationship with Graminex Russia.

Pollen Harvest 2009

2009 was a record rye pollen harvest. The weather stayed warm and dry. Harvest started on May 23rd and lasted until the 29th. Five fields of rye were collected during that time consisting of over 700 acres.

This year Heather May, Chief Operating Officer, successfully planted our crops on less acreage and still achieved the larger harvest Graminex needed. The amount of rye harvested this year in volume was Graminex's largest harvest to date.

Harvesting equipment was operated without any problems thanks to our maintenance staff and the purchasing of a new field truck. With better equipment Graminex was able to harvest more pollen in a shorter period of time. Graminex would like to thank all of its employees for their hard work during harvest.



Crane operator emptying incoming field trucks into the drying bins.

Phytosterols in G63 Flower Pollen Extract

G63 Flower Pollen Extract™ is a mixture of the lipid soluble and water soluble portions of the pollen extract. This formulation is used to produce PollenAid® capsules and tablets. Phytosterols and amino acids present in our pollen act as indicators of effectiveness. Recently, Graminex sent multiple batches of G63 Flower Pollen Extract™ for analysis on phytosterol contents. Test results indicated higher levels of sterols in G63 when compared to olive oil using advanced testing methods.

Various oils have been shown to contain moderate levels of naturally occurring phytosterols.¹ Olive oil in particular has been known for its phytosterols. On average olive oil contains 0.2% phytosterols.² In the analysis of G63 Flower Pollen Extract™, it was found that on average 2.9% of the lipids were phytosterols. Of these various phytosterols a few specific ones were higher than others.

Campesterol was the largest portion of phytosterols found. On average it amounted to 30.5%. A similar compound d-7-campesterol was on average 28.0%.

These two compounds are present in olive oil, but at very low levels. This was also the case with many other phytosterols including brassicasterol, 24-metilencholesterol, campestanol, stigmasterol, d-5,23-stigmastadienol, sitostanol, d-5,24-stigmastadienol and d-7-avenasterol.³

Although olive oil contains more β-sitosterol, G63 still contained on average 15.7%. With a wider variety of higher levels of phytosterols Graminex Flower Pollen Extract™ is a more well rounded product for natural phytosterol content than olive oil. When looking at nutritional content, G63 is also better due to its very low saturated fat content with an average of 0.95%. With oils and other natural ingredients high in phytosterols saturated fat content may be much higher. With olive oil saturated fats may range from 10.0-18.0%. Ideally for health foods and supplements there should be little to no saturated fat.

For supplements or functional foods, G63 Flower Pollen Extract™ is easily added to formulations to naturally increase phytosterols levels.

1. Piironen V, Toivo J, Puupponen-Pimia R, Lampi AM. Plant sterols in vegetables, fruits, and berries. *J Sci Food Agric.* 2003;83:330-337

2. <http://www.goodwithchildren.com/food/lipids/phytosterols.aspx>

3. www.bakeryingredients.com/tech/spec-org-evoo.pdf

UK Approval

Graminex LLC is pleased to announce that Graminex Flower Pollen Extract™ has been recently approved for health claims in the United Kingdom. Health claims for maintenance of normal urinary function and prostate health were both given approval.

Graminex PollenAid® will be exclusively distributed by PharmaSav Ltd. under the NutraFX label throughout the UK. Cynthia May is confident that a partnership with PharmaSav will help to facilitate Graminex's goal in supplying the international markets with Flower Pollen Extracts™ of pharmaceutical quality.

Yvette Hastings, CEO of NutraFX Ltd. is "extremely pleased that the evidence submitted for the efficacy of Graminex PollenAid has been accepted by the UK authorities."

Green Initiatives: Power Controller

In its efforts to become more efficient and consume less energy, Graminex has recently installed an Automatic Power Controller from StacoVAR. This controller has advanced computerized technology, specially engineered to optimize energy savings. With the rising costs of electricity, this is a very important additional measure to contain costs.

The power controller is designed to ensure that each motor consumes just enough electrical energy to meet the requirements placed on it. In sustaining the appropriate input levels of energy to a motor, motor performance is enhanced and overall wear and tear on the motor is reduced. In addition the controller also stops excess energy being spent but not used. With increased motor reliability, Graminex is counting on less downtime due to motor and electrical failure, especially during peak usage at har-

vest. When motors malfunction during harvest, Graminex risks losing valuable product. In the event of uneven power from the utility company and power surges, the power controller adds safety mechanisms to protect the electrical equipment in the facility.

In the bigger picture, Graminex is looking forward to lower motor maintenance costs, reduced operating costs with less downtime, more efficient use of electrical power, reduced equipment failure and stopping excessive power usage in the facility.

After ten years of running the manufacturing facility in Deshler, Ohio, Graminex is always trying to develop new and innovative ways of being a green manufacturer and an environmentally responsible company. Graminex hopes to continue finding more ways to streamline our operation and make it more efficient and environmentally friendly.



StacoVAR Automatic Power Controller at the manufacturing facility

Wellness News: Sodium



Do you know how much sodium you consume in one day or where it comes from? Some may come from table salt, but the vast majority comes from other sources. With more and more health issues being linked to sodium, it is important to know exactly how much you are consuming on a daily basis.

Sodium is a nutrient our body needs that can be found in salt and other foods. It is essential for life and good health and cannot be manufactured by the body. It is a vital component in all fluids in the body, including sweat and blood. Its presence helps to maintain the proper balance of fluids in the body and the acid-base balance of bodily fluids. Sodium is often used to enhance the flavor of foods, but it is also used for preservation, improving texture and ensuring the safety of some foods. Although it is a necessary nutrient, most of the world's population consumes more than the body's minimum required daily amounts.¹

Iodine enriched sodium is historically important due to its role in reducing health problems such as hypothyroidism. Lack of iodine in the body interferes with the production of important hormones and causes goiters. It also may cause mental retardation in babies or small children. In most of the developed world this is no longer an issue due to the addition of iodine to table salt. So while reducing the amount of sodium in your diet, be careful to maintain the appropriate amount of iodine.

Research has been shown to link high sodium and salt intake with high blood pressure or hypertension. This condition is a major risk factor for heart disease, stroke, and kidney disease. With higher blood pressures more force is placed on blood vessel

walls and the flow of blood is restricted to organs. The extra pressure can weaken blood vessels over time and make them less flexible, causing hardening.

In addition to problems with blood vessels, increased sodium levels also leads to increased levels of calcium in the urine or hypercalcuria. This is a common risk factor for the formation of kidney stones. Excess sodium in the blood is filtered out through the kidneys, making them work much harder. Restricting the intake of sodium is part of the dietary management of acute and chronic kidney diseases.

According to the Mayo Clinic the main source of sodium is found in processed and prepared foods.² Around 77% of the average adult's sodium intake comes from processed and prepared foods. The amount of sodium considered for good health in adults is 1,500 mg per day, with the absolute maximum being 2,300 mg per day with no adverse health effects.³ The average adult consumes over 3,400 mg per day.⁴ That is over twice what is necessary for your health.

So how do you find the sodium in foods? Read the labels. The label will tell you how many milligrams of sodium are present in the product, as well as what the sodium containing ingredient is. Look for labels listing the following ingredients: monosodium glutamate (MSG), baking soda, baking powder, disodium phosphate, sodium alginate, sodium nitrate and sodium nitrite. By consuming fewer food products containing these ingredients you will be able to lower your sodium intake to a healthier level. Despite having a salt shaker on the table, only 5% of the sodium consumed is added after cooking.

Trying to maintain a reduced sodium diet does not have to be hard. You can cut out sodium in the following ways:

- Eating more fresh foods, such as fruits and vegetables instead of processed foods
- Cutting back on cured meats, such as ham, bacon, salami and bologna

- Watching the amount of pop and club soda you drink
- Buying low sodium products
- Removing salt from recipes whenever possible, especially in casseroles and stews
- Limiting the use of sodium containing condiments
- Using herbs and spices to enhance food flavors instead of salt
- Rinsing canned foods, such as vegetables or legumes before cooking
- Reducing the intake of fast foods and eating out in restaurants
- Asking for salad dressings and sauces to be on the side so you can control the amount on your meal
- Reading the nutrition labels on foods you purchase at the store

Keeping sodium at a healthy level in your body is very important to maintain normal bodily functions. Although excess sodium has been linked as a risk factor for many diseases and health issues, total elimination can also cause health problems. By following the guidelines above we hope that you will be able to maintain your sodium intake at a healthy level for a better life.

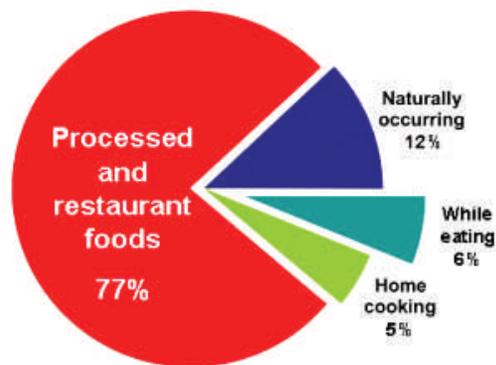


Chart showing percent consumption in the average adult diet.⁵

1. <http://www.ific.org/publications/reviews/sodiumir.cfm>

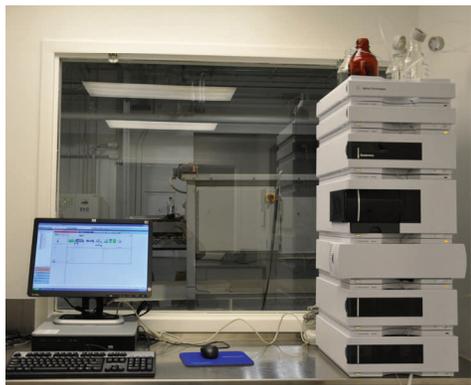
2. <http://www.mayoclinic.com/health/sodium/NU00284>

3. Health Canada. Nutritional News.

4. <http://www.cdc.gov/media/pressrel/2009/r090326.htm>

5. Mattes, RD, Donnelly, D. Relative contributions of dietary sodium sources. *Journal of the American College of Nutrition*. 1991 Aug;10(4):383-393.

Lab Equipment: HPLC



HPLC unit and its operating system.

Graminex has recently purchased a new HPLC (High Performance Liquid Chromatography) unit from Agilent Technologies. It will be used for testing amino acid content in our Flower Pollen Extracts™. By bringing additional testing capacity in house we are able to get faster turn around times of test results.

This particular model is capable of analysis that is 20 times faster than conventional HPLC. Also, being a newer technology, it has near-zero sample carry over for higher sample quality.

Graminex has begun using this HPLC for amino acid testing. Testing methods and

procedures have already been put in place specifically to test Graminex Flower Pollen Extracts™. The new HPLC will also be used for testing pesticides, nitrogen, aflatoxins, and vitamins. Graminex will continue to develop testing methods for the HPLC and add them to our in house capabilities.

Justin Ritter, Laboratory Manager and Regulatory Affairs, is “excited that Graminex now has additional HPLC testing capabilities in house, as turn around times will be reduced from 2 weeks to 15 minutes. It will also be an invaluable asset for future R&D projects.”

Natural MarketPlace 2009

Natural MarketPlace was in Las Vegas, Nevada. The show lasted two days, July 10th and 11th. The tradeshow was very successful for Graminex. It enabled us to talk to many of our customers who use Graminex Flower Pollen Extracts™ in their products. It also gave us the opportunity to educate the market place on the varied uses of Flower Pollen Extract™ and its different formulations. Flower Pollen Extracts™ are used in men’s products for prostate support. More recently Graminex has broadened the

application of Flower Pollen Extract™ into women’s health products, antioxidant supplements, cosmetics, beverages and food.

It is very useful to consult with customers at tradeshows to disseminate new information available on Graminex Flower Pollen Extract™, including new marketing data as well as new clinical trials and studies that were conducted. Tradeshows also give Graminex the chance to assess market changes and to pursue potential customers.



Employee Corner



Kimberly Bonner
Purchasing Agent

This quarter’s spotlight employee is Kimberly Bonner. She has been working for Graminex since 2006. Kim has been our purchasing agent at the Deshler, Ohio facility for the past two years. She has had many other previous jobs with the company, but her strong negotiation skills have made her an excellent purchasing agent. As purchasing agent she conducts all the buying for the company and makes decisions regarding costs and quality of all the supplies that are needed for Graminex to operate.

This includes making sure that the appropriate purchases are made on time and

anticipating delays from certain suppliers to avoid set backs. She consults with various companies to make sure that Graminex gets the lowest pricing on what is necessary. Once supplies arrive Kim also inspects them to make sure that they meet the qualities specified. In addition to all of this, order forms and purchase orders are filled out or approved by her.

Graminex is very happy to have Kim as and employee. Thanks to all of her hard work Graminex has saved a lot of time and money. Everyone at Graminex looks forward to working with Kim in the future.