



# The Pollen Press

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## FUTURE ISSUES:

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## UPCOMING EVENTS:

SupplySide East  
May 2nd-4th  
Secaucus, NJ  
Booth # 1543

Vitafoods Europe  
May 10th-12th  
Geneva, Switzerland  
Booth # 221

## Principium at in-cosmetics Milan



PRINCIPIUM, a long time partner of Graminex, will be exhibiting at in-cosmetics Milan, March 29-31st. In-cosmetics brings the world's leading personal care ingredient suppliers, formulators, R&D and marketing specialist together at one tradeshow. PRINCIPIUM will be revealing a perfectly water-soluble cosmetic non-allergenic pollen extract with new test results on the safety and efficacy. This new ingredient will specifically target daily cosmetic applications to re-energize the cell and its mitochondria, therefore allowing a reduction of the visible marks linked to day-to-day aging.

PRINCIPIUM Beauty Systems and Innovations is a Swiss company with a refreshing approach on efficacy products for the cosmetic industry. It was created from the will to adapt the benefits of science to the

cosmetic industry. PRINCIPIUM is able to innovate new ingredients within the framework of more constraining pressures (legislative, marketing, technologic, financial). Their work methods have been completely rethought from the ground up to use leading safe technologies in revealing unsuspected spectrums of activity.

The mission of PRINCIPIUM is to guarantee efficacy results through tested performance systems selected on their capacity to reproduce a targeted activity, with precise knowledge based on a constellation of experts. The promise of PRINCIPIUM is held throughout its demonstrations: the products, called PRINCIPIA, divided in two distinct offers: ingredients (beauty systems, guaranteed with an efficacy control at every batch) and technologies (patented innovations and specific partnership projects).

Graminex encourages anyone interested in new and innovative cosmetic and personal care ingredients to please visit PRINCIPIUM at in-cosmetics Milan at stand D77. For more information about PRINCIPIUM's product offerings visit their website [www.principium-bsi.com](http://www.principium-bsi.com) (starting on March 29th). Graminex looks forward to continuing working in partnership with PRINCIPIUM in targeting the cosmetic and personal care markets with their unique approach.

## New Lab Equipment: Disintegration

Graminex has replaced an outdated disintegration machine with a new Sotax DT 2 model. Tablet and capsule disintegration times are one value in a set of specifications that our product must meet. This new piece of equipment will be able to generate this value in a lot less time. It is easy to use and requires little input to reduce human error. At the end of the test a complete report is printed including individual disintegration times, statistics and temperature protocols.

Graminex is always upgrading and adding to its laboratory equipment at the manufacturing facility to help eliminate costly external laboratory fees, reduce laboratory testing turnaround times and

reduce laboratory waste. By not having to ship samples to external labs, Graminex is also able to keep increasing shipping costs down. This allows Graminex the ability to manufacture product in a more timely fashion and to ship products faster.

Sotax DT 2 Disintegration Machine



# Product Spotlight: Prostanex



Graminex Prostanex™ Capsules are a natural dietary supplement used for the support of men's prostate health and virility. Prostanex™ contains a potent combination of two ingredients known for prostate applications, Graminex G63™ Flower Pollen Extract and Saw Palmetto Extract. Prostanex™ is an ideal health supplement for men looking to help alleviate the symptoms of benign prostatic hyperplasia (BPH) and other prostate related problems in order to improve their overall quality of life.

**Each capsule contains:**

- Graminex G63™ Flower Pollen Extract 213 mg
- Saw Palmetto Extract 213 mg

The combination of these two ingredients in one formula, allows for an increase in the synergistic effects by both products when acting on the prostate gland.

Saw palmetto is a type of small palm plant found in the southeastern part of the United States. The saw palmetto used in Prostanex™ is extracted from the berries produced by the palm plant. Saw palmetto has long been used to help alleviate BPH symptoms. It has been shown to reduce prostate-specific antigen (PSA) levels and urinary flow rates by improving the hormonal metabolism of the prostate gland.

Specifically, saw palmetto extract has been shown to possess 5- $\alpha$ -reductase inhibitory activity. This prevents the conversion of testosterone into dihydrotestosterone (DHT). By inhibiting the production of DHT, men may see a reduction in excessive prostate growth associated with BPH. Hormonal effects have also been reported as well as direct inhibitory effects on androgen

receptors and anti-inflammatory properties.<sup>1</sup> Graminex G63™ Flower Pollen Extract has many clinical studies to show how it effects the prostate gland and helps to reduce the symptoms of BPH. Graminex G63™ concentrates in the prostate gland to decrease the size and congestion at the cellular level. By reducing the pressure on the urethra that runs through the center of the prostate gland, symptoms are alleviated and overall quality of life for men is improved. The specific action of Graminex G63™ on BPH symptoms has been studied in a number of clinical studies.

One clinical study completed in Europe shows the specific action of Graminex G63™ is able to inhibit the actions of both cyclo-oxygenase and 5-lipoxygenase.<sup>2</sup> By inhibiting these two enzymes, the arachidonic acid cascade is blocked, which prevents the enlargement of the prostate as seen in the figure below. This helps to alleviate both irritative symptoms as well as congestive symptoms associated with BPH.

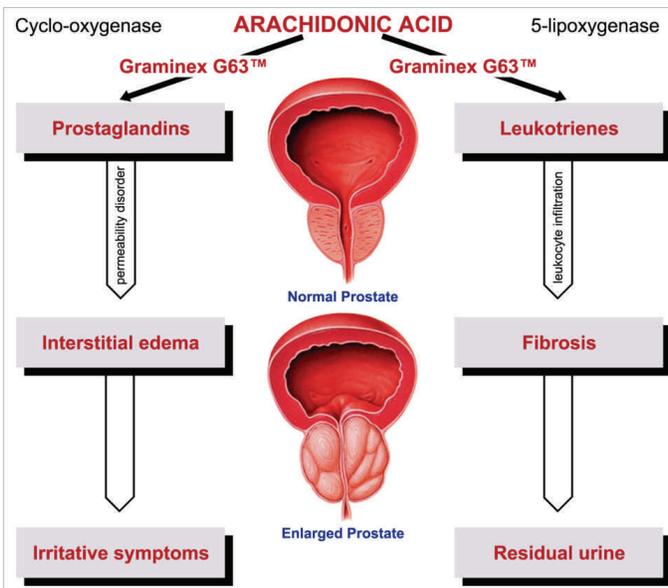
Other clinical studies with Graminex G63™ have shown:

- Anti-congestive activity to reduce overall prostate volume.<sup>3</sup>
- Reduction in nocturia and lower residual urine volume by 47%.<sup>4</sup>
- Reduction in daytime urination frequency.<sup>5</sup>

- Improvement in perineal pain, erection and ejaculation difficulty and pain during urination.<sup>6</sup>
- Improvement in symptoms associated with prostatodynia.<sup>7</sup>

Flower Pollen Extract™ is considered a safe and effective therapy for helping the management of mild to moderate lower urinary tract symptoms caused by BPH and other prostate problems. When combined with saw palmetto extract, men can expect the best possible natural product for helping alleviate their prostate problems. The Graminex G63™ and saw palmetto in Prostanex™ act synergistically on the prostate gland to improve urination function and prostate swelling, making overall quality of life and men's health better. For more information about Prostanex please call 1-877-472-6469 or email us at [graminex@graminex.com](mailto:graminex@graminex.com).

1. [http://www.mayoclinic.com/health/saw-palmetto/NS\\_patient-sawpalmetto](http://www.mayoclinic.com/health/saw-palmetto/NS_patient-sawpalmetto).
2. Buck A. *British Journal of Urology* 1996 78(3), 325-36.
3. Vahlensieck W., Dworak O., *Helvetica Chirurgica Acta*, 1988, 555(3), 293-296.
4. Buck A., Cox R., Rees R., Ebeling L., John A. *British Journal of Urology* 1990, 66, 398-404.
5. Preuss H., Marcusen C., Regan J. et al. *Int Urol and Neph* 2001, 33, 217-225.
6. Yokoyama H., Suzuki N., Mishimura Y.



Kanda New Medical Clinic 2009.

7. Rugendorff E., Weidner W., Ebeling L., Buck A. *British Journal of Urology* 1992, 71(4), 433-438.

**Graminex G63™ inhibits the cyclo-oxygenase and the 5-lipoxygenase and thus reduces the biosynthesis of prostaglandins and leukotrienes from arachidonic acid (7).**

# Wellness News: Sleeping

Everyone knows sleep is important and that we need it, but many do not know how much sleep they need or if the quality of sleep they are getting is good enough. Sleep patterns not only have an effect on how tired you feel during the day, but they can effect how you feel mentally also. In fact sleep can effect a number of physical things that can lead to poor health and overall well-being. Sleep deprivation has been shown to significantly affect health, performance and safety. The long-term effects of sleep loss and sleep disorders have been linked to many health problems including an increased risk of hypertension, diabetes, obesity, depression, heart attack and stroke.<sup>1</sup> Around 70 million people in the United States have a sleep problem, with a quarter of adults not getting the minimum amount of sleep required to be alert during the day.<sup>2</sup> The average adult needs 7-9 hours of sleep a night.

How does sleep work? During the night your body goes through two main types of sleep, non-REM and REM (rapid eye movement). Non-REM sleep has four different stages that progress from wakefulness to deep sleep. REM is a single sleep stage that can occur many times in a single sleep period. During the night sleep patterns move in a cycle going back and forth between intense deep sleep that is restorative and REM sleep while you are dreaming. Most of restorative deep sleep occurs earlier on in the night, with the REM dream sleep cycles getting longer as the sleep period continues.<sup>3</sup> Both deep sleep and REM sleep are integral to the body's health.

The most critical type of sleep for your health is the intense deep sleep. During these periods of sleep the body is able to replenish itself for the following day. There are actual physiological changes that take place while in deep sleep. As breathing slows down and blood pressure falls, the brain goes into a rhythmic wave cycle. During this time an increased amount of growth hormones are released to the body's tissues and muscles. These hormones stimulate repairs to be made for damages brought on throughout the day by physical activity. Also during this time, the immune system gets a

Stage 1: Transition into sleep	Stage 4: More intense deep sleep
Lasts about 5 minutes	Deepest stage of sleep
Eye move slowly under the eyelids	Brain waves are extremely slow
Muscle activity slows	Blood flow is directed to the muscles
Easily awakened	Physical energy is restored
Stage 2: Light sleep	REM: Dream sleep
Lasts about 10 to 25 minutes	About 70 to 90 minutes after asleep
Eye movement stops	Dreaming occurs
Heart rate slows	Eyes move rapidly
Body temperature decreases	Breathing is shallow
Stage 3: Deep sleep	Heart rate and blood pressure increase
Difficult to awaken	Arm and leg muscles are paralyzed

boost, causing it to become more active.

REM sleep functions on a more psychological level in the brain. The brain center controlling body movements is shut down during REM sleep. During these cycles blood pressure, heart rate and breathing increases. REM sleep gives your brain the ability to interpret emotional information from the day and transfer learned skills to the memory area. This is made possible by replenishing the supply of neurotransmitters in the brain. These neurotransmitters include serotonin and dopamine, responsible for boosting your mood for the next day. For overall well-being REM sleep is extremely important. Since most REM sleep occurs later in the night, you can increase the production of neurotransmitters by sleeping an extra 30 minutes later. However if you are sleep deprived, sleeping later will not be as restorative physically as you expect. Since we get most of the deep restorative sleep earlier in the sleep cycle, sleeping longer will not help if you have been sleep deprived for weeks. A schedule of going to bed earlier every night for several weeks will be more effective than sleeping 12 or more hours for two days, like we commonly do on the weekends.

So what influences our quality of sleep? Sleep quality is often decreased by what we do through out the day and right before bedtime. Many people find themselves worrying about the next day and making to-do lists as they are trying to fall asleep. Before you get into bed write these lists down so they can be out of your mind when you are

trying to sleep. Also if you are sensitive to caffeine, drinking coffee or tea in the 4-6 hours before falling asleep may be interfering. Taking long naps in the afternoons is also not recommended. If you must nap make sure it is only for 45 minutes and is well before bedtime. Exercise is important for your health, but hitting the gym within 2 hours before bedtime will

interfere with sleep. Engaging in other activities in bed besides sleeping will train your body that you are not there to sleep. Do not watch television, pay bills, eat, read books, or play on the computer in bed.

Sleep patterns are extremely important in keeping our circadian clock functioning properly. Our circadian clock functions based on a number of things including sleep, daylight and temperature. Going to bed and waking up at the same time, even on weekends, will keep this internal clock on a regular schedule. Better sleep habits are all about training your body to know when it is time to sleep and allowing it to happen for the length of time the body needs to replenish itself.

According to the National Sleep Foundation the following items ranked the highest, a comfortable mattress, comfortable pillows and sheets, a cooler bedroom temperature, fresh air and air free of allergens, a dark and quiet bedroom, a clean bedroom and sheets.<sup>4</sup> It makes sense that the better you feel about your bedroom before you go to sleep, the better night sleep you will get. So if you have trouble sleeping or feel tired all the time, try changing a few of your habits and it may help you get a better night's sleep.

1. <http://www.iom.edu/Reports/2006/Sleep-Disorders-and-Sleep-Deprivation-An-Unmet-Public-Health-Problem.aspx>
2. [www.sleepandyou.com](http://www.sleepandyou.com)
3. <http://www.helpguide.org/life/sleeping.htm>
4. <http://www.sleepfoundation.org/bed-conditions>

# Green Initiatives: Packaging Recycling and Reuse



Over the past few months Graminex has concentrated on improving recycling and reuse of packaging materials. This included

an audit of the quantities of packaging materials used for international and domestic orders, as well as conducting a detailed inventory of all incoming packaging materials that are normally recycled. Often times the packaging materials used by our suppliers may be reused for another purpose, especially bubble wrapping and other space filling materials used inside of packages.

By working with a new recycling company,

Graminex has been able to recycle a wider variety of items than before. It has also simplified the recycling process. We are able to deliver all of our recycling to one location.

Graminex would like to encourage all of our customers and employees to expand their current recycling programs and to look at ways to reuse items before recycling them.

## Investments in Agriculture Equipment

Graminex has recently purchased new pieces of agriculture equipment for this year's harvest season, a spreader and rotary cutter. Our research and development team is constantly experimenting with multiple field plots for new and innovative

crops for our raw material production.

The John Deere MX10 Rotary Cutter will be used for chopping down field residue and for general cutting of different crops. This cutter will allow Graminex to do more experimentation with different crops to expand our raw material production.

The Frontier SSI220P Spreader will also be used in our raw material research and development projects. It will be used mainly for applying different types of organic fertilizers and seeds in our fields.

Graminex's commitments to research and development have been greatly expanded this year. We are committed to developing new and innovative products that bring



**Frontier SSI220P Spreader**

added value to local agriculture. With constant new research being conducted on our raw materials and finished products, Graminex is able to continue providing the highest quality Flower Pollen Extract products to our customers.



**John Deere MX10 Rotary Cutter**

## Employee Corner



**Rocelin Hernandez-Perez**  
Production Supervisor

This quarter's employee is Rocelin Hernandez-Perez. Rocelin is an employee in Graminex's production department. Currently he supervises the night production shift. He has worked for Graminex for a year and a half. Rocelin mainly works in the processing area, where the pollen separation takes place.

In the processing area of production he is responsible for making sure the equipment is running smoothly and any problems are taken care of. This involves dismantling and repairing different types of

equipment used for producing pollen. He is very good at trouble-shooting problems that occur during production and getting them fixed quickly.

Rocelin also works in other areas of production as he is needed. This includes operating different machines on the bottling line for production of finished bottled products as well as bulk finished products.

All the employees at Graminex enjoy working with Rocelin and look forward to working with him in the future.