

GOOD SPROUT NEWS

"Sprouting Solutions"



"SPROUTING SOLUTIONS"

2010 CONVENTION - CHICAGO

SPECIAL DELIVERY

In this issue we will begin recapping our industry convention that took place May 19-21, 2010. This will serve to refresh your memory if you attended the convention and inform those who were unable to attend.

CAUTION: this newsletter contains the cutting edge advances being made in the sprout industry.

Upcoming Events

July 2010

July 1st - Board of Directors Conference Call



We will be utilizing a new conference calling system, please [e-mail Rich Wolfe](mailto:rich.wolfe@isga-sprouts.org) for details.



Spring 2011

2011 ISGA Convention - Las Vegas

The Board has selected the destination: next year's convention will be held in Las Vegas! Watch for more information coming soon. If you have a great idea for a speaker or event, please e-mail [Carlos Gonzalez](mailto:carlos.gonzalez@isga-sprouts.org), chairperson of the Convention Committee.



If you have an event or article that you would like considered for the next newsletter, please e-mail it to secretary@isga-sprouts.org by June 30, 2010.

FROM THE PRESIDENT'S DESK:

Good day, I want to start out by thanking everyone that was able to attend this years convention and help to make it such a great success. As you may have noticed from the program, this is the 20th annual ISGA convention. But you may not realize that several years ago we skipped a year and did not have a convention. So in fact this is the ISGA's 21st birthday. I think in Japan the legal drinking age may be 20--they are a year ahead of us in the US. But they have been very patient, and we are delighted that so many have come from Japan to help us celebrate.

Supposedly the "legal drinking age" does not signify only the right to consume alcohol. It also traditionally

signifies the right to vote, which in turn indicates that one is considered able to make one's own decisions, and to take responsibility for one's actions.

This year's ISGA Convention could be seen as that kind of transition point in the sprout industry. Specifically in the US sprouting industry, we are setting up a method of self-determination, for making decisions about the conditions for growing sprouts. We are a young organization whose history could be divided into three parts. Our first ten years we were filled with youthful optimism; we had a new

(continued next page)

From the President's Desk:

(continued from previous page)

product, we were becoming recognized by society as providing an exciting new food. Many of us started from little more than positive imagination, and put our businesses together from any parts and pieces we could find. We also made up our own rules about production and sanitation.

In the US, after the first ten years of excitement and expansion, we found out that life was not quite that simple, and that it was not adequate to make up our own rules in any way we wanted. So the government stepped in, just when the US sprout industry was entering its adolescence.

This could be seen as a natural parental response to the free-wheeling, impulsive behavior of adolescence. We were basically told to clean up our room, and in the US, we were told how to do it. And as is typical with teenagers, we didn't like what we were told. During the second ten years of our existence, although we were not comfortable being told what to do, things were under somewhat better control under the government rules.

But as the ISGA celebrates our 21st birthday, we in the US are entering a new phase, which, like the legal voting age, brings with it the need to take responsibility for determining the rules and conditions under which we can best function in society. This afternoon, we will discuss a recently formed Task Force, and find out more about how we can participate in it. To continue the adolescent-maturity example, the work of the Task Force could be seen as the sprout industry saying, we think that if we work with each other, and with the most capable experts in the critically important areas, we can put together our own set of rules and regulations. But they will be very different from what we have been doing in the past, in that we will be deciding them for ourselves, rather

than being told what to do and what not to do.

At legal drinking age, or, in more positive terms, legal voting age, one

attainment of voting age for the ISGA is happening at the same time as we are recognizing the needs of nutrition around the world. We will hear things that we have heard before: how unique



Bob Sanderson, President of ISGA, delivers his welcome address to the convention attendees on Wednesday, May 19, 2010.

must take responsibility. Part of this is coming to terms with the idea that our parents may not always have the best answers for us.

This 21st birthday, with its requirement for greater self-determination and responsibility, may extend beyond the relatively young sprout industry in the US, to include our decisions about what we would like sprouts to be, worldwide. This morning we will hear about opportunities and challenges that involve society on the largest scale. What kinds of food are being produced today, what kinds of decisions are people making about what they eat; how do the properties of food and the way food is processed and marketed affect the overall health of human beings. And so the

our products are in terms of nutrition, but I hope we will also be given a new sense of the important role our products can play in providing the best nutrition in a world where much of the food is increasingly being over-processed and robbed of its nutrition, with very unfortunate results. With that, I would like to introduce our first speaker.

Dr James Galloway is Assistant US Surgeon General for District 5, which includes Chicago and much of the mid-west. He will take us on a journey which will be quite an eye-opener, and which I hope may give us a powerful sense of the growing importance and opportunity for the sprout industry around the world. [\[Click here to link to Dr. Galloway's presentation\]](#) ■

PEARSON FOODS CORPORATION TOUR



Pearson Foods has three hundred products and growing. What a great success story from yet another 1970's young grower beginning with a small sprout business. Dave Pearson and his wife Sandy graciously hosted a group of ISGA convention attendees at Pearson Foods in Grand Rapids, Michigan on Tuesday, May 18, 2010. Pearson is one of the largest fresh-cut food processing companies in the Midwest currently distributing to at least seven states and serving many more through other distribution. The tours were guided by Dave and Sandy. Dave is the CEO and Sandy is the President. The impressive line of products was rivaled only by the team of employees and managers that

seemed to work like a well oiled machine. Shannon proudly answered questions regarding the sprouting division of Pearson Foods Corporation. Dave, the CEO, quickly attributed the beginning of his success to sprouting. The tour ended with a wonderful lunch at a local Chinese restaurant. As we departed for our return to Chicago, Sandy Pearson presented each attendee with a lovely Pearson Food bag filled with local Michigan products. It's easy to see why Pearson Foods has been, and continues to be, a success story. Thanks Dave and Sandy for sharing your day with us. Your generosity is greatly appreciated. ■

Bob Rust from ISS
contributed this article.

The ISGA Office
would like to thank all
of the 2009-2010
Board of Directors for
their invaluable service
to the organization and
the sprout industry.
Thanks again!



NEWLY ELECTED

Board of Directors

Officers

Bob Sanderson, President

Jonathan Sprouts

megadome@meganet.net

Carlos Gonzalez, Vice President

The Perfect Sprout

theperfectsprout@gmail.com

Joe Mahoney, Vice President

Jack & The Green Sprouts

sprouts@dishup.us

Rich Wolfe, Treasurer

ISGA

office@isga-sprouts.org

Bob Rust, Secretary

International Specialty Supply

bob@sproutnet.com

Directors

Michael Lalley

The Perfect Sprout

sproutsz@hotmail.com

Tao Liming

Ningbo Wulongtan Vegetable Foodstuff Co.

& China Agricultural University

taoliming@nbwlt.com

Jay Louie

Louie Foods International

louiefoods@aol.com

Steve Meyerowitz

Sproutman Publications

sproutman@sproutman.com

Yasuhiro Sahara

Daisey Machinery Co., Ltd.

sahara@daisey.co.jp

Bengt Schumacher

Ontario Ministry of Agriculture & Food

bengt.schumacher@ontario.ca

Carlos Stolzenbach

Caudill Seed Co., Inc.

salessprout@caudillsprouting.com

Jane Tsao

Biofarm, Inc.

jane@biofarm.cn

More Developments in Competitive Exclusion

A comprehensive talk by Dr. Keith Warriner of the University of Guelph, Ontario.
Dr. Warriner is an Associate Professor in the Department of Food Science.

Sprouts (principally alfalfa and mung bean) have been implicated in over 35 major food-borne illness outbreaks since 1995. In the majority of cases the seed has been suspected as the source of pathogens, such as *Salmonella*, although occasionally environmental contamination can occur.

In order to enhance the microbiological safety of sprouted seeds it has been recommended to 1) screen seeds for pathogens prior to sprouting, 2) apply seed sanitation methods and 3) screen the spent irrigation water for pathogens.

The research performed by Dr Warriner's group has focused on seed sanitation and also technologies to facilitate on-site testing of spent irrigation water. With regard to the latter, current spent irrigation water testing protocols recommend that samples are taken early (48 h) into the sprouting process and then tested in-house, or more commonly by a private laboratory. The analysis can take 2-5 days and hence the product is normally released to market before the microbiology results are known. In addition, testing can cost \$20-40 per sample and consequently represents a major financial burden to the sprout producer.

Warriner, in collaboration with Dr Fu of the FDA, developed an on-site, culture-free, spent irrigation testing unit with an analysis time of four hours. The unit is low-cost (<\$300) and the cost per test is approximately \$10. The system is based on tangential flow filtration coupled with an electrochemical immuno-assay. The performance of the system has been verified using mung beans inoculated with low levels of *Salmonella* (1.3 cfu/g)

and subsequently sprouted. The system did not give rise to any false positive or false negative results.

Warriner's group also developed a sanitizer for seed disinfection that can be used as an alternative to the largely ineffective treatment based on sodium hypochlorite. The sanitizer is an oxychloro compound that will be distributed under the trade name, Germin-8-or. The key difference of Germin-8-or, compared to other types of sanitizer, is that it has no detrimental effects on seed germination or development. Hence, Germin-8-or can be used in the seed soak water and inactivate pathogens as they emerge from protective niches. Studies have repeatedly demonstrated the efficacy of Germin-8-or to inactivate pathogens (*Salmonella*, *E. coli* O157:H7) introduced onto seeds. The sanitizer can be applied at a low concentration (200 ppm) with 125 ml of Germin-8-or (\$2.50) being needed to treat 25 kg of seed.

Although Germin-8-or is effective, organic sprout producers would prefer a natural (biological) approach to ensure pathogen free sprouts. To meet this demand Warriner's research group developed a biocontrol approach using a combination of antagonistic bacteria (probiotic) and bacteriophages (viruses that infect bacteria). Baseline studies screened mung bean sprouts for bacterial isolates that exhibited anti-*Salmonella* activity. The assay used to screen for antagonistic bacteria initially cultured the test isolate on agar plates. The colony was then killed by exposing to chloroform vapor and the plate overlaid with a lawn of *Salmonella*. The plates were further incubated then inspected for clear zones of inhibition.

From the isolates screened, an *Enterobacter asburiae* strain (designated JX1) exhibited stable antagonistic activity against a broad range of *Salmonella* serovars (Agona, Berta, Enteritidis, Hadar, Heidelberg, Javiana, Montevideo, Muenchen, Newport, Saint Paul and Typhimurium).

Lytic bacteriophages against *Salmonella* were isolated from pig or cattle manure effluent. A bacteriophage cocktail prepared from six isolates were co-inoculation with *E. asburiae* JX1 along with *Salmonella* in broth culture. The combination of *E. asburiae* JX1 and bacteriophage cocktail reduced the levels of *Salmonella* by 5.7 -6.4 log CFU/ml. Mung beans inoculated with *Salmonella* and sprouted over a 4 day period attained levels of 6.72 ± 0.78 CFU/g. In contrast, levels of *Salmonella* were reduced to 3.31 ± 2.48 log CFU/g or 1.16 ± 2.14 log CFU/g when the pathogen was co-inoculated with bacteriophages or *E. asburiae* JX1 respectively.

However, by using a combination of *E. asburiae* JX1 and bacteriophages the levels of *Salmonella* associated with mung bean sprouts were only detected by enrichment. The biocontrol preparation was effective at controlling the growth of *Salmonella* under a range of sprouting temperatures (20-30°C) and was equally effective at suppressing the growth of *Salmonella* on sprouting alfalfa seeds. The *E. asburiae* JX1 and bacteriophages combination represents a promising, chemical-free, approach for controlling the growth of *Salmonella* on sprouting seeds. ■

Bob Rust of ISS
contributed this article

ISGA Marketing Proposal Supported by Regional Growers

Recently I was asked to speak about sprouts at a regional Food Fair. My topic was Health Benefits. I decided to create a flyer to hand out that would highlight some of the recent scientific research that is revealing the real miracle living inside this powerful food. [\[Click here to see Health Benefits of Sprouts ISGA Flyer\]](#)

I knew all of this information before, but the act of putting it together into a flyer startled me. For instance, the Proceedings of the National Academy of Science of the USA, Xiangqun Gao, molecular scientist wrote: "A diet high in broccoli sprouts is a safe, long-term approach to preventing age-related macular degeneration and blindness. It may protect the eye from damage

caused by the sun's ultraviolet light, believed to be the primary cause of degeneration.

Here's another: Dr. Andrew Weil, famous US author of books and newsletters has been warning people not to eat sprouts because of the toxin L-canavanine that was used in an experiment to induce a relapse of Lupis in monkeys. The L-canavanine that he used was extracted from alfalfa seeds and fed to the monkeys as 50% of their diet. More recent studies have demonstrated benefit for pancreatic, colon and leukemia cancers from consumption of canavanine in reasonable quantities. We all know that an overdose of the best medicine can kill you.

(continued next page)



"We have got to get this good news out there."



Wasabi Sauce

- ❖ 3 T - Wasabi
- ❖ 1 C - Mayonnaise
- ❖ Salt & Pepper

Mix ingredients together and add salt and pepper to taste. Enjoy!

-Mrs. Sumiyo Kawakami

RELIVE THIS FABULOUS RECIPE:

[\[Click here for other great recipes\]](#)

White Fish & Broccoli Sprouts

- 450 g - White fish fillets
- 200 g - Sliced smoked salmon
- 2 - Egg whites
- Salt and pepper
- 1 C - Cream
- 2 C - Broccoli Sprouts

Process white fish fillets until smooth. Add salt and pepper and egg whites, and process. Gradually add cream. Do not process long after adding the cream. Take 2/3 of the fish mix out of the food processor and add the sprouts. Process greens and the fish. Line base and sides of an ovenproof dish with the salmon. Put the white fish mix in 1/3 of the dish.



Then add a layer of the fish mixed with greens. Put in another 1/3 layer of the white fish mix. Cover with the salmon on top. Place terrine in a baking dish with 2 C hot water. Bake in a moderate oven for 50 - 60 minutes.

ISGA Marketing Proposal Supported by Regional Growers

(continued from previous page)

And this news: Through its Public Affairs and Technical & Legislative Committees, the IFST has authorized the following Information Statement, dated October 2001: "Phytoestrogens have oestrogenic activity in humans, but this activity is much lower than that of human oestrogens; as a consequence phytoestrogens inhibit the activity of human estrogens and may have desirable effects, for example reduce the risk of breast cancer." Clover Sprouts are very high in Phytoestrogens.

Dr. Elizabeth Jeffery informed me that if your body is low in phytoestrogens, the plant estrogens will raise the level of estrogens in your body. This may be good for menopausal women, but not for women who have already experienced breast cancer and whose doctors want them to maintain low estrogenic levels.

Another highlight I discovered, about wheatgrass: "Clinical observation showed several patients with plantar fasciitis responded quite rapidly (sometimes in a day or two) to treatment using the wheatgrass-based topical application."

Check out the flyer [Click here to see Health Benefits of Sprouts ISGA Flyer] for references and charts. This flyer may be printed and distributed freely by anyone.

We have got to get this good news out there. At Jonathan's Sprouts, we have been researching PR agencies for help. They seem to want a retainer for a certain amount of hours per month of work on our behalf, and a contract for a year to really make progress in getting our news out to the public. Jonathan's can never seem to afford that kind of a commitment, nor can the ISGA at this time.



So... Here's my plan!

All we need to do is find 12 companies (US or outside the US who are selling into the states) who are willing to commit to \$500 per month for a year to retain an agency. The PR will be focused on these things:

- ▶ Re-branding sprouts in the public mind from "Health Food" to "Protection from Disease".
- ▶ Contributing companies will have local events – Guerilla Marketing – that will highlight their companies.



Poul Heilmann

- ▶ Press kits will be distributed to targeted news media for when they are looking for an article to print.
- ▶ Information flyers (containing recipes, photographs, nutrition information, etc.) will be made

available for all sprout growers to distribute to their customers.

- ▶ The agency will work with each of the contributing companies to produce articles for them and distribute them to their local media.

▶ More....

As these things were mulling around inside me, I was contacted by Paul Pliakas from Strata Marketing. He came to talk to Jonathan's



Paul Pliakas

Sprouts about his skill at developing innovative new products based on consumer insight, marketplace trends and marketing research. After showing him around our place, we sat down to talk. As I listened to what he had to say, it occurred to me to mention my "plan" for the ISGA. He bit. He liked the idea. And, most important, he began to push me to put some time into helping him develop a presentation for our convention.

This is the longest introduction any speaker here today has gotten. So without further ado, let me present to you: Paul Pliakas and his partner Poul Heilmann. [Click here to see Pliakas Branding Plan and Process]

So far, we have gotten commitments from 4 companies and a one-time donation from an affiliate member of the ISGA. If you can sign on with us, please contact me at Barbara@jonathansorganic.com. ■

Barbara Sanderson of Jonathan Sprouts contributed this article.

LINK TO THE PRESENTATIONS FROM CONVENTION

Day 1 Talks

[Food Safety Australia Slides - Amanda Hill](#)

[ISGA Sprout Task Force - Armand Paradis](#)

[ISGA Safety Seed - Benjamin](#)

[Sprouts and the Obesity Epidemic - James Galloway](#)

[Japan Safety Slides - Latiful Bari](#)

[Determination of Pesticides Residues in Food - Canping PAN](#)

[Sprout Audit Checklist \(Second Draft\)](#)

[Tangential Flow Filtration Paper - K. Warriner](#)

[Bacteriophage Research Paper - K. Warriner](#)

[Bacteriophage Sprouts - K. Warriner](#)

[Sanitizer Research Paper - K. Warriner](#)

[Pathogen Distribution in Mung Bean Beds Paper - K. Warriner](#)

[Risk Management - Richard Whiting](#)

Day 2 Talks

[Health Promoting Foods - Britt Burton-Freeman](#)

[Health Benefits of Sprouts ISGA Flyer](#)

[Roots of Health Enhancing Sprouts - Elizabeth Jeffery](#)

[Talk and Recipes - Sumiyo Kawakami](#)

[Branding Plan and Process - Paul Pliakas](#)

[Recipe Book - Sumiyo Kawakami](#)



International Sprout Growers Association
733A Bald Hill Road
Warwick, RI 02886
www.isga-sprouts.org
phone - 508-657-ISGA (4742)