

# How Southeastern farmers are starting a... **New, Eco-Friendly Green Revolution!**

In the photo below, you'll recognize Dr. Norman Borlaug, the "Father of the Green Revolution."

With Borlaug in the picture is his friend and close associate, Dr. Leon Hesser, who is often called the "Uncle" of the Green Revolution.

Dr. Hesser spent decades of his career showing farmers worldwide how to use high-yielding crop varieties and improved technology.

Now, Dr. Hesser is introducing farmers to a new yield-lifting, quality-improving product which is inexpensive to spray-apply on any crop.

Over 300 North Carolina farmers are among the most enthusiastic users of this new product, developed by Biobased AG, a firm headquartered in North Carolina. It's labeled with the research name *SoySoap*. The technology is distributed worldwide under several local trade names.

Dr. Hesser says: "I've never experienced anything like what I saw in summer 2008 in the fields of North Carolina farmers who used SoySoap."

"This 'revolution' took root in 2007 when a North Carolina grower, Freddie Daub, tested SoySoap on his soybeans and saw yields jump 80%."



**Norman Borlaug**      **Leon Hesser**

**Two of the world's most dedicated** grain-raising experts: Dr. Norman Borlaug (left) with Dr. Leon Hesser. After a career of helping increase food production worldwide, Dr. Hesser retired to Florida. In early summer 2008, he investigated harvest results on wheat, oats, soybeans and other crops on the farms of eight North Carolina producers who are testing a unique, biologically benign spray material. Its research name: "SoySoap." See evidence of its effectiveness in this report, then view detailed information and videos at the website:

[www.biobased-ag.com](http://www.biobased-ag.com)  
or e-mail  
[donwilshe@biobased.us](mailto:donwilshe@biobased.us)

"In the summer of 2008, I saw wheat yielding 95 to 120 bu. on North Carolina farms where the best-ever yield had been 70 bushels."

"I've worked with crops in 20 countries to help advance the Green Revolution, but I've never seen crops respond to a product like this."

"The dozen or so farmers I met in North Carolina are ecstatic. Typically, they harvested 35% to 40% higher yields on soybeans, oats and wheat because of this product."

"**Somehow it causes plants to grow a larger root structure**, which leads to improved plant health and larger yields. It's reasonable to assume the improved health and larger rooting allows plants to draw more nutrition from the soil."

"I've studied wheat all over the world. Normally, heads of ripe wheat are about three inches long. But over 80% of the heads on treated wheat I saw in North Carolina in Summer 2008 were four inches long or more. Wheat heads normally have three rows of kernels. Nearly all of the SoySoap-treated wheat heads had *four* rows of kernels."

"And normal test weight for wheat runs 53 to 54 pounds per bushel. The North Carolina wheat tested about 60 pounds or higher."

"**Let me express my confidence** in the product this way: I have a signed agreement with the developer that authorizes me to introduce this new technology to several countries in Eastern Europe."

"I have experience in those countries. From 1995 to 2001, I made 23 trips to Ukraine to help their government transform state-owned collective farms to private ownership."

"I expect there'll be great enthusiasm among farmers across Eastern Europe when they see how they can benefit from this inexpensive, effective new product."

## **What North Carolina farmers are saying about SoySoap in 2008**

(Names here are initials only at farmers' requests. They've been flooded with phone calls as the SoySoap news spreads)



### **100-bu. wheat**

**W.S.** — We're having the best yields we've ever had. It's beautiful grain. Yields are 90-plus bushels; test weights 63 to 64 pounds.

It was not overdone with fertilizer; just cow manure and a little nitrogen.

We applied one spray of SoySoap with top-dressed liquid nitrogen.

**FD.** — In the Piedmont of North Carolina, we're not used to seeing wheat like this with a 5-inch head and four rows of grain in most of the heads. It's amazing. We didn't use pesticides, and had no noticeable insect damage. Wheat straw yield was double what we're used to.

**B.M.** — I've never seen my wheat average 100 bu. until this summer! Sometimes my combine yield monitor hit 160 bu. an acre. No insects in the wheat, and I used no pesticides.



### **133-bu. oats**

**FD.** — This oat crop is striking me almost chest high. I had never grown oats this tall until I used this SoySoap on them. I've raised oats about all my

life, but I've never had them get this tall and this big and look this good — and not fall down.

In late June we had a day with 40-mph winds, and I thought surely they were all going to be flat. But they stood really well. they yielded 133 bu. an acre. Test weight averaged 38.8 lbs. per bushel, and the oats were clean because they weren't lodged.

**The oat stalks were bright and strong.** Some were big enough to put a pencil inside the shafts. They matured early, so we drilled double-crop soybeans July 6.

It looks like those double-crop beans will make 60 bushels. As of Oct. 6 — three months after planting — they were loaded with beans that had about filled. [See photo at right]

**I first learned about SoySoap in spring 2007.** I applied 8 oz. per acre on Roundup Ready beans when the plants were about four inches high. I just added SoySoap when we sprayed for weeds.

During the season, control plots had the usual holes in the leaves from insects. But treated plants had no holes in leaves or pods: It looked like they didn't attract insects.

The treated beans had about 80% more pods per plant than the control, and yielded 80% more. Untreated

beans had test weights of 54 to 55 lbs. per bushel. Beans from the SoySoap treated field tested 57 to 58 pounds.

That was last year, 2007.

**This year I tried another comparison:** Two fields with nearly identical soils, planted with the same soybean variety the same day.

I sprayed one field with SoySoap, but not the other. I didn't tell anyone that one field hadn't been sprayed. By July, neighbors were asking, "Why such a big difference between those two fields?"

When I told my partners I hadn't put SoySoap on one field, they said, "You best go spray the other field too, so it can try to catch up!"

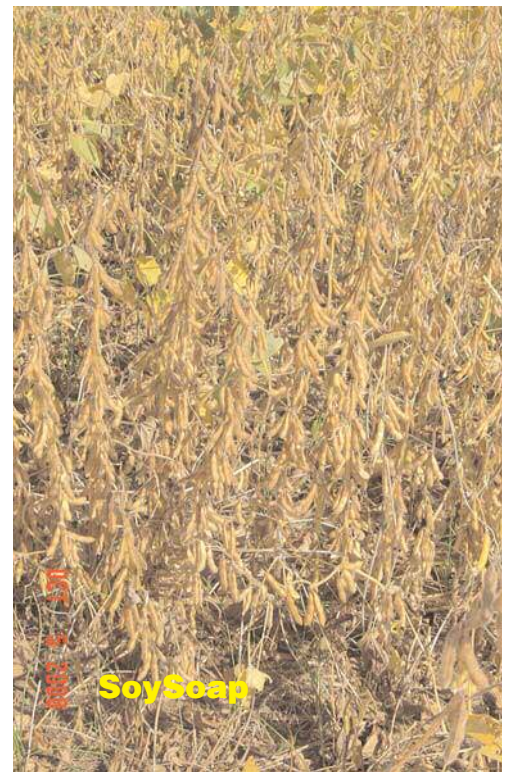
It's unreal how much better the root systems are in the SoySoap field than where we didn't spray early.

**Those big roots went out and got extra moisture and nutrients.** The pod count in the treated field is a lot higher. I expect yields across the early-treated field to range from 60 to 80 bu. per acre, with the best yield coming from the lower-lying ground where there was a bit more moisture during our very dry 2008 season.

One reason I don't want my name in print is this: If our landlords learn what big yields we're getting with SoySoap, they'll want more rent.



**Double-cropped soybeans** on F.D.'s farm as of Sept. 7, 2008, just eight weeks after drilling into oat stubble July 6. They were sprayed with SoySoap at about the trifoliolate stage. In one season, this field has already produced 133-bu. oats — and has a good chance of producing 60-bu. soybeans after the oats. Also, there wasn't much rain all season except for a late deluge following a hurricane which swept up the East Coast.



**The saga of two soybean fields,** from start to finish, as described in comments from F.D. above. The control field is in the two top photos at left. The field treated with SoySoap early in the season — about the three-leaf stage — is in the bottom pair of photos, plus the close-up above of the beans in the treated field. The first photos were taken July 17, 2008; the second set (including the thick pods shown above) were taken on Oct. 5. The size of plants and maturity of the treated field exceeds the control. The treated field was expected to yield in the 60- to 65-bu. range. The control field is just up to the grower's knees, even though his partners insisted on spraying it with SoySoap in late July with hopes of helping it "catch up" with the early-treated field. Watch our website for yield data on these fields.



**200-bu. corn in a dry year: 2008.** The ears of corn above were raised in a bottomland field of north-western North Carolina. Across the field, the combine yield monitor registered 200 to 225 bushels. The owner, B.M., says, "Our upland ground would have yielded the same if we'd just had some more rain." He applied 8 oz. of SoySoap soon after emergence. The front ear above has 16 rows with 46 deep kernels per row. Dried to 14%, the ear weighs 13.4 ounces. Average corn test weight from the field was 60 lbs. per bushel. Note that kernels in about a third of the ear — between the red lines above — *are not dented*. It's normal to see round kernels in the very tip and base of an ear of "dent" corn — but it's unusual to see rounded kernels extend a third of the way down from the tip. Some corn fertility experts observe that this is a sign of very complete nutrition for the corn plant all the way through ear fill. In the ear at right, broken at the center, note the very deep and uniform kernels. The ear at right had 18 rows of kernels, with 48 to 50 kernels per row.



---

## *A brief background on discovery and development of SoySoap...* **A new, ecologically friendly yield enhancer**

In 2003, a small American research firm, Biobased AG, developed an ecologically safe, biobased cleansing wash for fresh fruit and vegetables.

It's formulated entirely from items on the Food and Drug Administration's list of approved food ingredients in the U. S. (the EAFUS list). Its research name: *SoySoap*.

After two years of successful use as a fresh-crop wash, the developers discovered that when *growing* crops were sprayed with a very diluted solution of SoySoap in water, *plants developed large, deep roots*.

**In tests on more than 10,000 acres** of tomatoes, peppers, potatoes squash, grains and specialty crops, the super-sized roots energized 20% to 100% higher yields. Fruit and vegetables had higher sugar content. Grain had heavier test weights. Environmental Protection Agency officials advised that federal registration procedures as a growth regulator would take several years and several hundred thousand dollars. So the product's inventor invited overseas crop scientists to test it.

**When farmers and governments** in Vietnam, India and China saw their own test results on rice and other crops, they eagerly sought to use SoySoap on millions of acres. Biobased AG has cooperated with testing at more than 20 universities worldwide.

Now, a widening range of U.S. universities and test stations are becoming interested in testing the product. Trials are underway at Ohio State University, the University of Florida, University of Georgia, North Carolina State University, the Ag Research Division of Alberta (Canada) Agriculture and Rural Development, and other locations.

Biobased AG is a biotechnology company which specializes in making Green Revolutionary II products out of Biobased US FDA EAFUS Food Additive Database ingredients. Biogased Ag does not sell to the public. We research and develop OEM formulations and provide them to companies throughout the world. They in turn private-label these products, register them in accordance with state and national laws, and sell them to producers. Our speciality is 95% agricultural products which can be bio-pesticides, 25B exempt, fertilizers, micro-nutrients, and so on. Our mission is to end world poverty and hunger via agro-power by creating more disease-free, toxin-free, pesticide-free agricultural products. SoySoap trials worldwide indicate it's an ecologically friendly product. It requires very little energy to manufacture. Any spray material reaching the soil is biodegraded in 28 days.

Since it's made entirely with FDA-approved food ingredients, it's non-toxic to people, livestock and wildlife. It's "just food" in a unique form.

**Scientists studying SoySoap have several theories** on why young plants respond by intensifying root growth first, then fruit, vegetable or seed production later.

Most of these theories rely on the science of nanotechnology. Particles in SoySoap that can be seen under a scanning electron microscope are less than one nanometer in size — less than a *billionth* of one meter.

Thus the effect on plants is not from a chemical reaction. It's a "message" to plant cell communication, intensifying root growth. With huge roots and healthy root-soil interaction, the plant can extract more moisture and nutrition from soil. This is why early application — soon after emergence — is especially effective.



**Our longest-running experience in agriculture** is with tomatoes, potatoes, peppers, squash and other vegetable production. Our product was originally developed as an organically-based, non-toxic cleansing agent for fruit and vegetables. Then we discovered that *growing* crops respond so positively, SoySoap has been used on more than 10,000 acres of truck crops in the past five years. In addition to yield increases of 20% to 100%, growers typically report higher brix levels, earlier maturity, longer shelf life and improved appearance on the retail counter.

Biobased AG works with local distributors around the world. Most of these distributors private-label the product, register it according to regulations in their state or country, and service customers personally. All of them share research results and field experience so Biobased AG can continue research and development for future enhancements. See also: <http://www.biobased.us/veggie.html>

We make no claims for biopesticide effect, or any “-cide” quality, as SoySoap is non-toxic — formulated entirely from products on the U.S. list of approved foods and food additives. Where growers report benefits from reduced insect damage, we assume what many scientists have realized for years: Healthier plants are less attractive to insects, which are nature’s cleanup crew.



**“The Okra plant on the right wasn’t the biggest one on the treated part of the field** — it was just one small enough to get out of the ground.”

We couldn’t resist closing this report by showing a photo and results from the staff at the Brevard County, Florida Sheriff’s Farm at Rockledge. Their 7-acre farm grows food crops for the prison and food banks. When they sprayed our product weekly, Okra grew 8 feet tall. The staff could hardly keep up with picking. They harvested more than 800 lbs. of Okra in the 2008 season. “Insects are somehow not interested in the plants at all,” says the staff. “We think it is because of the increased overall health of the plants due to the product.” We include this photo because it shows a primary plant response — greatly enhanced rooting, so the plant can take up more moisture and nutrients.

*For more information, contact*

**Biobased AG**

4237 Cornelius Road, East Bend, NC 27018

Phone: 239 989-7390

Phone: 800 995-9203

<http://www.biobased.us>

Email: [donwilshe@biobased.us](mailto:donwilshe@biobased.us)



**Raspberries were still blooming and growing** in abundance on two 100-foot rows in Black Hawk County, Iowa, after four weekly sprays of SoySoap at 1:250 dilution. In early July, leaves were being devoured by Japanese beetles. Most beetles disappeared after two sprays. The bushes hummed with honeybees from July into October as new blooms and berries emerged. Photo taken at Barn Happy, a country store near Cedar Falls, Iowa.

*We constantly get calls, letters and e-mails from enthused gardeners who say they’re amazed at the positive response they see after spraying SoySoap on vegetables, fruit and flowers. Here are two of the notes we’ve recently enjoyed:*

### **Ambushed by bush beans**

**From Randy Jenkins, East Bend, North Carolina**

I’ve been gardening for 55 years, and I have never seen anything like my green bush beans this year. After I saw my neighbor’s soybeans growing so well in a drought early this year, I asked him what he had done.

He said “SoySoap,” and gave me one old 16-ounce Pepsi bottle of it, with instructions. I had planted four 100-foot rows of Tenderet bush beans, thinking I would have enough for my own family.

I sprayed my beans twice with the very diluted solution of SoySoap in water. They kept blooming and yielding all summer. I gave away bushels and bushels and *bushels* to anybody who would pick them.

Members of my church volunteered to pick for the elderly and needy in our community. They picked until they were sick of beans.

I finally got tired of watching them produce, and in early September, bushhogged them down. There was probably 25 bushels of beans on them, and more blooms, when I shredded them.

Also — I had the best, sweetest late sweetcorn ever; I had sprayed it twice with SoySoap. Two ears on every stalk. The best part of both corn and beans was that I didn’t spray any insecticide, and had no beetles or corn worms. I’ll buy a gallon of SoySoap next year, and it will probably last me a lifetime. You can print my name, too... I have lots of church members here who can confirm what I’m saying!

### **Tobacco bales overweight at the scale**

**From Jeff and F.D., northwestern North Carolina**

Everyone who applied SoySoap on their tobacco here in northwestern North Carolina is finding an increase in poundage and quality this season. Some growers who stacked their first priming into the usual sized bales discovered at the scales that those bales were 200 to 300 pounds heavier than the 800-pound maximum weight per bale. They had to learn to cut back on the amount of tobacco in a bale, so they wouldn’t go over 800 pounds. They had more total pounds of tobacco to sell, and the improvement in leaf density is a sign of quality that the tobacco buyers like.