NEWS OF AGRIBUSINESS

North Carolina growers report yield response to SoySoap

East Bend, N.C., grower Freddie Doub was skeptical. Ayden, N.C., grower Chris Stancell was even more skeptical.

But both farmers tried SoySoap on a few acres and both say the product worked well on their farms.

SoySoap is made from natural ingredients, primarily food, exactly what's in the material seems to be as closely guarded a secret as Colonel Sanders' fried chicken recipe.

Technically a surfactant

Technically, SoySoap is a surfactant — an agricultural soap — that is applied as a foliar application, usually in a tank-mix with herbicides or other agricultural products. It has been linked to improved pest control and increased soil fertility.

"We used it on soybeans last year and will look at it on wheat next year," says eastern North Carolina grower Chris Stancill. "My brother and I were very skeptical about some of the claims made for the product. We watched the soybeans

on which we applied it throughout the year and they did look different from the beans around them," he First published Jan. 13, 2010 I can come up adds.

The test plot of beans on Stancill's farm was sprayed twice with SoySoap at a cost of about \$18 per acre. "I wanted to be sure what I was getting, so when I combined the beans, I double checked the GPS system and ran them through our yield check program."

At the end of the day, he says, the SoySoap-treated beans produced five bushels per acre more than untreated beans (55 versus 50 bushels per acre). "This was a real good crop of soybeans, and I suspect the yield enhancement may have been higher if we had less favorable growing and harvesting conditions. Still a five per acre bushel yield increase is a good return on the cost of the input," he says.

Doub, who farms over 2,000 acres of grain crops with two of his brothers (Gene and George) in western North Carolina says he too was skeptical. "In 2007, we used SoySoap on 80 acres of soybeans. That was a real dry year, especially early in the crop year, and we noticed the treated beans kept growing, while our non-treated beans and our neighbor's beans quit when the drought got bad.

Noticed wet leaves

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"I started looking at the treated and non-treated beans, and I noticed leaves on the treated plants were wet. It appears during real dry weather the treated beans take up moisture during the night. I don't

> know how or why that occurs, but that's the best explanation with as to why the SovSoap-

treated beans did so much better in dry weather," the North Carolina farmer says.

In 2008, western North Carolina was among the hardest hit areas of the country by drought, and Doub sprayed all 1,700 acres of his soybeans with SoySoap. "We had neighbors with complete crop failures because of the drought, but we managed to harvest 32 bushels of soybeans per acre," Doub says.

"Without the SoySoap, I don't think we would have harvested 20 bushels of beans per acre. It's hard to say because we sprayed all our



beans with it, but neighbors struggled to make 20 bushels per acre," he adds.

Doub, who has seen the product work for three consecutive years, recently became a distributor for western North Carolina. Despite his confidence in the product, he says he has no idea what's in it.

"It's made from all organic materials, perfectly safe for humans to handle and it works. We typically spray it twice on our crops at a cost of about \$18 per acre. Depending on how you sell your beans, that means you have to make a bushel yield increase per treatment to break even, and I don't have any doubt SoySoap will make a lot bigger increase per acre difference, especially in dry years," Doub contends.

Smells, feels like soap

When using SoySoap on grain crops, Doub applies eight ounces of the product with 20 gallons of water. He contends it smells like soap and it feels slick on crop leaves like soap.

Last year Doub knifed the

product in with corn, along with 10 gallons per acre of nitrogen, at planting on a few acres. The corn came up quickly and looked different from the rest of our corn, planted the same day in the same field.

He called his crop consultant a few days after the corn emerged and they pulled up some plants to examine the root system.

The corn plants were 4-5 inches tall at that time. It was unusual, the North Carolina grower says, that the corn seed was still the same color as it was when it came out of the bag.

The crop consultant came back 10 days later, when the corn was 12-14 inches tall and pulled up more plants in the same area of the field.

The grain of corn was still attached and firm — very uncharacteristic of what the root system should look like at that stage of growth, the North Carolina grower contends.

After harvesting all his corn, Doub says the soil-applied SoySoap field was among the highest yielding fields of corn on his farm. On Aug. 1, Doub planted 20 acres of soybeans — just to see what effect SoySoap would have on the crop. "I know its way too late to plant beans, but we wanted to see what would happen — we never expected to harvest the crop," Doub says.

Sprayed twice

He sprayed the beans twice, over-the-top with SoySoap. "We got a couple of good rains after we planted the test field and beans just popped out of the ground. I kept watching the weather and when the first frost occurred, the beans had pods, but no kernels in the pods," he says. "I told my brothers, we have to spray these beans again with SoySoap to see if we can save them.

So, we applied the second application of the product the day before the first frost hit them," Doub recalls.

The fourth day after the first frost, Doub called his insurance adjuster to look at the beans.

"Like me, he's been around

farming all his life, and we agreed, we'd never seen beans still green in a frost so heavy it looked like snow," he says.

As of Dec.1, the beans had survived several frosts and remained green and growing.

"I've been growing soybeans for a long time, and I've never seen anything like it — I'm guessing we will still get 20-25 bushels of beans from this test plot," Doub concludes.

Added options

He says he doesn't expect anyone will plant soybeans in August, or even much past July 1, but by speeding up the growing season for wheat and soybeans, it gives growers a lot of options for double-cropping wheat and soybeans.

SoySoap is marketed under a number of trade names across the country and is used on everything from grain crops to raspberries. The product is manufactured by Bio-Based USA and sold as private labeled products.

Followup report from BioBased USA on Freddie Doub's soybeans

East Bend, NC, Feb. 2, 2010 — The 20 acres of soybeans which Freddie Doub planted Aug. 1 were finally harvested the first week in January, after soaking rains delayed harvest all through November and December.

Even with all the rain and foggy days, "We didn't have any mold in the beans, and very little loss from split pods. The beans were real bright and pretty." says Doub.

After the first heavy frost on Oct. 18, that 20-acre field was the only green field of soybeans around — and the deer knew that.

"The deer moved in and just mowed the back third of that field," says Doub. "It would have yielded at least 25 bushels per acre without that damage. Even so, we took an average of 14.5 bu. per acre from the field. That was a good return from a field that last spring was so wet I never thought we'd get to plant it at all."



Here's that 20-acre beanfield which was planted August 1. This photo was taken November 22. Beans had filled the pods. Continued rains delayed harvest until late December. Doub finished the last of his soybean harvest the first week of January, dodging storms and snow. Freddie is at left above, showing the field to visiting friend Steve Moseley.