

Technology Hits the Dirt

Soil amendment has achieved remarkable success in crop yields in California and Arizona.

In 1917, when Jim Alderson left home for UC Berkeley's "School Farm" (now UC Davis) he had no idea that he was planting the roots of a 21st century agricultural breakthrough. By embracing the science and technology of farming from the earliest days of his career, he began a family tradition of innovation in agriculture that has endured through three generations.

By the early 1990's this family tradition had Jim's son, Bob Alderson — himself a veteran grower — and Bob's son, Tim Alderson, working together on a remedy to one of the 20th century's last remaining impediments to optimum crop yield: the physical structure of soil.

In 1995, the father-and-son team, along with partner Ghassan Alireza, introduced a revolutionary soil stabilizer known as AgriGator that, over the last five years, has increasingly been recognized as somewhat of a phenomenon.

Reason: AgriGator, used by major growers in five western states on over 20 different types of crops, has resulted in remarkable yield increases from 8 to 57 percent and reduced water usage by 30-70 percent.

Grimmway Farms, Scottsdale based Martori Farms, Rousseau Farming Company of Phoenix, D'Arrigo Brothers in Salinas, and Sun World International, among others, have each reported yield increases in trials involving carrots, garbanzo beans, lettuce, melons, grapes, artichokes, and tomatoes.

"AgriGator Soil Conditioner does one simple thing," said Tim Alderson, AgriGator president. "It stabilizes soil structure. This one simple thing, though has far reaching implications that ultimately lead to increased crop yields and higher profits."

When injected into irrigation water, the liquid product causes tilled soil to remain in a tilled state even after repeated irrigation or rain, Alderson notes. "AgriGator works," he added, "by attaching itself on a molecular level to the surface of soil aggregates thereby holding them stable against the destructive forces of water, wind, and cultivation."

The product is also non-toxic, he emphasized, and applied in the same manner as liquid fertilizer. It is custom applied by the company or its growing number of distributors which include AgRx, active in Ventura, Santa Barbara, and San Luis Obispo Counties; Fertizona, which covers all of Arizona as well as northern Mexico; and Salinas-based John Pryor Company which serves the growers of Monterey County.

In the past several years, AgriGator has racked up some impressive results, but perhaps none more astonishing than the garbanzo bean field trial last year conducted in Aguila, Ariz., at Martori Farms 20,000-acre ranch.

Jimmy Byrd, Martori's growing division manager, said that a 57 percent increase in yield occurred on a 20-acre furrow irrigated trial and that a 28.6 percent increase resulted from a 15-acre trial irrigated with sprinklers. "We're impressed enough with AgriGator to start using it in cantaloupe and cotton tests this year," Byrd said.

In California, David Gardoni, of D&J Farms, Soledad, has reported a 53 percent increase in romaine production and in Merced County, Jeff Marchini, of J. Marchini & Son, reported an 11.6 percent yield increase using AgriGator on his tomatoes.

Among the more interesting results are those achieved by Guido Pezzini, a veteran artichoke grower in Castroville who used the product to combat the negative effects of seawater intrusion. "The difference was like night and day, with the plants becoming greener and the earth more porous," exclaimed Pezzini. He also reported that the vegetable was harvesting two to three weeks earlier than in the past.

Alderson said lab tests showed that there was a 14 percent reduction in sodium levels in plant tissue samples taken six weeks after the product was applied.

"I think my grandfather, whose fertilizer innovations dramatically increased crop yields in the early twentieth century," said Alderson, "would be pleased with the success AgriGator has achieved in the 21st century."