

Growing Your Own

BY ROBYN ROMINGER

Equine enthusiasts are able to produce their own horse feed from seed in six days, thanks to a hydroponic system that some believe is the wave of the future.

Fodder Solutions uses hydroponics to create fresh mats of sprouting grains and seeds that can be fed to horses and other livestock. The nutritious "biscuits" produced by the innovative system are being used as an alternative or supplement to hay and grain.



Horses enjoying some hydroponically-grown feed

The Australian company has been marketing its hydroponic system Down Under since 2004 and recently began its expansion into the United States.

"I love the Fodder Solutions machine—it's really cool," said Patricia Hurter, who owns Thoroughbreds in Harvard, Mass. "It produces beautiful, green grass. The root mat is pretty dense so it doesn't fall apart easily. The horses love it."

Terry Colless, president of Fodder Solutions USA, said, "In terms of how healthy is it for the horse, and how is it going to be more cost-effective, we actually win on

both fronts."

He noted that university trials conducted in Australia at the University of Queensland in Gatton demonstrated the nutritional value of hydroponically sprouted barley for horses. That study showed the high-moisture content and long fiber length of the fodder product enabled horses to spend more time chewing, which is a benefit for fully stabled horses. Increased chewing is associated with increased saliva production—a benefit in reducing the incidence of gastric ulcers. Over the period of the trial, the horses' demeanor and coat

condition improved compared to horses on the control diet of dry hay and grain.

Colless designed the system along with his business partner, Flavio Raccanello, in Australia. "We developed the transportable growing chamber about six years ago," he said. "In Australia it slowly took off, and then it was a runaway train."

Colless said the product's popularity soared after being selected as the Queensland Farm Invention of the Year in 2006.

The company has sold more than 400 units to clients in Australia as well as in Ireland, South Africa, South Korea, and the Middle East.

Fodder Solutions USA began marketing its system in California last year and has since sold units from coast to coast. There are dealers in California as well as in Arizona, Montana, New Mexico, and Texas.

Last year many people expressed interest in the patented system when it was displayed at the World Ag Expo in Tulare, Calif., and the California State Fair in Sacramento. Fodder Solutions' first U.S. client is an organic dairy in central California; other clients include Thoroughbred owners and beef cattle ranchers.

The units are built in Oxnard, Calif., said Colless, a former plumber and aircraft technician. The automated system is available in four sizes. The smallest system feeds six horses a day and starts at \$9,900. "The smallest system costs \$5 a day to finance," Colless said.

The largest system provides feed for up to 63 horses and has a price tag of \$34,000. "The largest system produces 63 15-pound biscuits per day," he said. "You can finance it for \$14 a day."

Colless said each unit is custom-built. "We have standard models, but we give the customers options," he said, such as the option of having electronics on the left or right side, or having single- or double-opening doors. The company installs the unit and provides technical support.

After the system is set up, a horse owner may sprout one type of grain or legume, such as barley or alfalfa, or blend together different types to customize the feed.

For Thoroughbreds, "If you have a standing horse between races, feed it just barley," Colless said, "but if you have a horse in hard training, that's when you feed it a blend."

The fodder system controls the seeding rate, irrigation system, and temperature. The unit can be set up inside or outside, although Colless said placing it inside a barn is preferable so as to protect it from the elements.

"In the United States we're coming out with an improved, technically advanced system that will handle the extremes of down to minus 10 degrees or up to 120 degrees," Colless added.

Hurter said that her system is a prototype designed to withstand Massachusetts'

COURTESY FODDER SOLUTIONS



Growing hydroponic feed may make sense for farmers raising and caring for horses in extreme climates

sub-zero temperatures. It provides feed for her four horses, which include two Thoroughbreds. She became interested in feeding hydroponic grass to her horses several years ago after reading about the famous Belgian Warmblood, Big Ben, an international Grand Prix winner and Canadian Sports Hall of Fame inductee. Big Ben was fed a highly digestible diet in an attempt to treat his chronic colic problems.

"I have a Thoroughbred that, as long as he's turned out 12 hours a day, he's fine, but if he's not, he gets colic," Hurter explained. "He injured his leg, and I was worried about him getting colic, so I started researching and I found Fodder Solutions in Australia."

Hurter's Thoroughbreds are ex-racehorses that have a second career as show jumpers. She produces barley sprouts for them in an aisle of her barn.

"According to the specs, you get about 80 pounds of grass per day, so each horse is getting about 20 pounds of grass a day," she said, noting that 20 pounds is the equivalent of about 1.5 biscuits.

Hurter said the system is a good fit for raising horses in Massachusetts because hay is relatively expensive, partly due to a lack of availability during the cold winter months. And land prices are high, so many horse owners are unable to provide enough grazing acreage.

"If you live in Virginia and have large amounts of rolling hills with grass, that's one thing, but in Massachusetts, hay is expensive," she said. "If you look anyplace where there is drought, or it's too cold, or there's not enough land, I think it's a great solution. It's less expensive, the grass is beautiful, and it's better for the horses. It's not often you can cut the costs and have a higher-quality feed."

Troy Mortensen of Williams, Ariz., is pleased with his Fodder Solutions unit.

"I've fed barley through it and I've fed oats through it," he said. "My horses will leave green alfalfa to eat it. We fed it to our show pig last year, and he ate it."


It is easy to grow the sprouts, he said, noting that the seed is simply poured into trays that slide into the machine. "It just made sense to me. For some people it's a hard sell, but to me it seemed like an easy way to go. Even the kids can do it."

Mortensen said the sprout mats are more cost-effective than feeding hay and grain to his horses and livestock. "With horses, it's probably about a 35-40% savings," he said. Mortensen said he can buy barley seed for about 22 cents a pound. Along with the cost of electricity to run the system, "I figure my cost per day is about 66-70 cents per animal, and I'll break even on the system in two years."

Katie Cocquyt is a Thoroughbred owner

in Moorpark, Calif., and a representative of Green Stride Equine, the equine division of Fodder Solutions. She said her firm is also testing the hydroponically grown feed on horses to determine the potential health benefits as compared to horses fed alfalfa.

"We've used this as a case study on various athletes at various levels of competition," Cocquyt said, including racehorses, show jumpers, and other performance horses. "Lameness, gastric issues, and anemia have all substantially improved" in horses that eat the sprout mats.

The moisture content of the sprout mats is appealing and beneficial to the horses, she said. "The entire sprout mat holds the water, so the horses can suck the water right out of it. They love it. And the sprout mat is tremendous roughage. It goes through and cleans out their tract. Their stalls don't smell like urine or manure because it's highly digestible. I genuinely believe this is the wave of the future, particularly with performance athletes." 

Robyn Rominger is a freelance writer living in Winter, Calif.

To view some videos of the system, visit www.foddersolutions.net