In 1997, Deb and Dave Hofmann launched D&D Ranch on their 53-acre farm in Swisher, Iowa. Originally, they constructed a 20-by-40-foot greenhouse and purchased 50 lbs of red worms. The first year’s focus was on increasing their worm population, which continues to be an important part of day-to-day operations. “Maintaining our population has been such a balancing act,” explains Deb Hofmann. “While the fish bait market is profitable, we don’t want to risk our vermicompost market by depleting our worm supply.”

D&D Ranch obtained its composting permit from the Iowa Department of Natural Resources (IDNR) in 1998. It is the largest vermicomposting facility in the state and the only one with a permit. Through the permitting process, the Hofmanns became aware of grants for landfill alternative operations within the state. The couple applied for IDNR Solid Waste Alternative Program funding in February, 1999 and was awarded $126,701. The money was used to build a 60-by-90-foot heated pole building that houses 60 four-by-eight-by-one-foot worm beds at a constant 70°F. As the market for vermicompost began to develop, the business received $22,697 from IDNR to install a commercial bagging system.

**GETTING WORM FOOD**

To obtain food for the worms, D&D offers a full manure management service to small horse and cattle farmers. Customers can either haul manure directly to the facility or Dave Hofmann will go on-site and clean up piles. After manure is taken to D&D and put in piles, food residuals are added. That includes coffee grounds collected from the Iowa Memorial Union located on the University of Iowa campus and Uncommon Grounds, a downtown Iowa City restau-
D&D offers a full manure management service to small horse and cattle farmers to obtain its primary feedstock. It also collects food residuals from several restaurants.

D&D’s largest food residuals supplier is Ox Yoke Inn in the Amana Colonies. Its food residuals are pulped, reducing moisture and weight. “The pulping process eliminates grinding,” says Deb Hofmann. “It is fast food for the worms, already ground and ready to feed. We are actively pursuing other sources of pulped waste.” Dave Hofmann collects material from the Ox Yoke Inn in 32-gallon containers and hauls them to the ranch on a flatbed trailer.

Ideally, worm castings are harvested on a ten-week rotation, six beds per week. A motorized three-sixteenths-inch screen harvester separates the castings from the worms. The worms are reintroduced into a new bed unless orders are pending for fish bait. Fish bait is sold in bulk or by the cup, ranging anywhere from $17 to $24/lb, depending on quantity ordered and logistics. D&D sold over 800 lbs in the last fiscal year.

After castings are harvested from the beds, if moisture is too high, they are stored to dry before bagging. Dried vermicompost is bagged in six-lb breathable bags under the name Back to Earth. Bags are weighed on a digital scale to ensure accurate volume. Initial runs of the bagging system have shown that it has an output capability of 260 bags per man-hour. D&D is targeting chain wholesalers as its market. The finished product sells for approximately $1 per pound, with variation according to quantity ordered and delivery. This year, Back to Earth is being marketed by Earl May Nurseries in 54 stores located in four midwestern states.

BUILDING MARKETS THROUGH EDUCATION

Deb believes that the basis of a strong market begins and ends with education. An $860 grant from the Practical Farmers of Iowa and a $987 grant from Iowa Earth Year 2000 — Governor Thomas Vilsack’s year-long initiative to increase environmental stewardship — aided D&D in launching a comprehensive campaign to teach residents about compost. On-site tours also are an important part of the marketing strategy. "D&D has really taking a holistic approach to vermicomposting,” notes Amber Mayo, environmental specialist for IDNR’s Waste Management Assistance Division. “Vermicomposting is an exciting way for schools to deal with waste and D&D has developed a nice program for them to utilize. They’ve also put a lot of work into the marketing of their product.”

D&D has the capacity of processing 180 tons of waste annually and set a goal of diverting an overall 180 tons from the landfill this year. Deb, working part-time as a registered nurse, and Dave, working part-time as an independent contractor, also have set a goal of becoming a fully sustainable farm family. “We want to live, work and raise our family in the country,” states Deb. “We have the capacity to expand our operation by four times, and hopefully our goal will become a reality in the near future.”

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