

Barley Straw Grows Into Niche Marketing Enterprise For Keener Family

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Not only that, the bales are providing the amazing feat of keeping ponds and water garden algae-free.

That's right — barley straw is a natural alternative to herbicides and chemicals to prevent pesky algae from covering ponds and water gardens.

Scientists can not explain exactly how the process works, but barley straw, when exposed to sunlight and oxygen, produces a chemical that inhibits algae growth.

Even skeptics of this seemingly too-simple solution to the age-old problem of algae become believers when they try the method or read the research done by extension services and other companies.

The use of barley straw to counteract algae has been used extensively in Europe for many years, but only in recent years has gained popularity in the U.S.

Kountry Bales are bringing a much larger profit than their full-size counterparts.

About two years ago, Dennis Keener read an article about barley straw in *Lancaster Farming*. Intrigued, he decided to research the market.

Keener, his wife Donna, and children Danae, 18; Deron, 14; and Derek, 7, were already filling a niche market by providing small hay bales for pet use.

The Keeners' experience in perfecting manufacture of small bales and in niche marketing served as the basis for this new venture. Nevertheless, it wasn't without a lot of perseverance and trial and error.

"It was a bit like giving

birth," Keener said of the labor involved in legal work, insurance, name protection, and sales calls to make the venture successful.

He recently had a third automated baler built to his specifications. The baler is in a shop in the Keeners' backyard. Barley straw is purchased in regular-size bales and hand-fed into the baler that produces the mini-bales. The machine can make up to 100 mini-bales an hour, but the process is slowed because each bale must be hand tied.

"The technology to have the machine do the knotting is available, but the cost could buy me a Mercedes Benz,"

Keener said of the decision to continue hand tying.

Wire cannot be used because of damage to animal and fish life. Instead, baler twine is used because it is biodegradable. The bales are also given a "haircut" when finished to give them a neater appearance.

Through mistakes, the Keeners learned that barley straw must be top quality and harvested at the right time or it will crumble. It must be packaged in a bag that will allow it to breathe.

Although a bale of barley can be dumped into the water, it works best when anchored to the bottom but allowed to float to keep the straw near the surface of the pond, where sunlight and oxygen are more prevalent.

Keener had a supplier build cages to specified sizes. These cages keep the barley straw contained but in a floating position. The amount of barley

straw required varies according to pond size.

According to information released from Penn State, the most common application is about two to three bales per pond surface acre. The depth of water is not important. In ponds that are frequently muddy or those with a history of heavy algae growth, two or three times the recommended amount may be required for the initial treatment.

A 12-ounce bale will treat up to 1,200 gallons of water. And an 8-ounce bale is used to treat up to 700 gallons.

But overdosing may cause fish kills, because the straw deoxygenates the water as it decays. This is more of a problem if the pond is overdosed with straw during a prolonged warm spell.

If the prescribed amount of barley straw is added to the water, it will not harm fish or

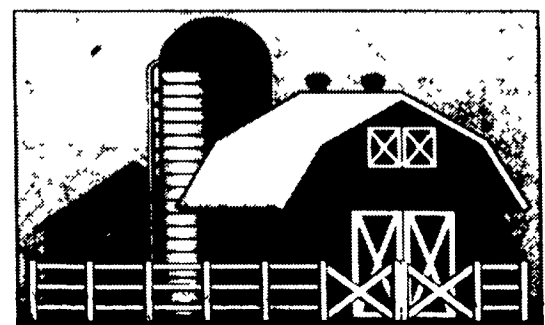
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The growing demand to keep ponds and water gardens algae-free opened up a whole new venture for the Keeners. Barley straw does not kill existing algae, but inhibits new growth of algae if placed in ponds in early spring.



Generally the Keeners wear masks to protect them from breathing in fine dust, but they discarded the masks for photo purposes.



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 GRIPS AND LEAFMINERS
 AND MORE ELSE WITH
 A TWO WAY MODE OF
 ACTION THAT KEEPS ON
 OPERATING THEM FOR
 DAYS AFTER APPLICATION.
 WHETHER THE...