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Biologist Samantha Wilson and Joseph Wilson, chief executive officer with Bio-Response Solutions, pose with the company's newest product, The BioLiquidator. It is the latest in carcass removal technology, and this mobile unit can be transported behind a pickup truck.

Mobile technology gives farmers new options for carcass removal

By WHITNEY COLE

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BUTLERVILLE, Ind. — One of the hardest parts of being a livestock farmer is carcass removal.

The state-approved standards that apply to dead animal disposal include either burying the carcass at least four feet below the natural surface of the ground, thorough and complete incineration of the carcass, use of a rendering service or composting using very specific and sometimes costly "recipe."

But there is a newer technology that now can be brought to the farm.

The BioLiquidator is an affordable option for producers. The alkaline hydrolysis system has been made mobile and affordable through Bio-Response Solutions.

Bio-Response Solutions biologist Samantha Wilson said the system can dispose of carcasses by breaking down the animal tissues into the most basic building blocks using alkaline hydrolysis.

"This is the preferred method for carcass disposal," she said.

The leftover effluent — after the BioLiquidator has been able to run for a predetermined amount of time dependent on the amount of carcasses in it — is nothing more than a solution of soap, amino acids, small peptides, sugars, nutrients and fragments of bone. The bones left in the unit are collagen free.

Disposal of the effluent is

easy because it is an environmentally friendly product.

"This (effluent) can be dumped, but it seems like a waste because it is so rich in nutrients," Wilson said.

Methods include sewer and landfill disposal, but the thick syrupy substance also can be utilized as nutrients for anaerobic digesters, enrichment of manure slurry, compost additive, land application as fertilizer or as an energy-rich biomass fuel additive.

The smaller mobile unit the biologist was using for demonstrations can handle about 2,500 pounds of animal tissue at a time.

The larger unit can handle 3,500 pounds. Both mobile units can be pulled easily with a pickup truck, even when loaded.

Stationary units also are available and cost less than the mobile ones, but even the mobile units are very cost-effective.

Wilson said the demonstration mobile unit she had would cost less than \$70,000. There are other options that also can come with The BioLiquidator, such as an onboard propane

electric generator and an animal loading swivel hoist.

Wilson said the mobile units are completely contained systems and can operate in the field. The units are powered by electricity and propane, but use little amounts of both.

In a trial run of cattle and chicken remains, the total energy cost of the BioLiquidator was less than two cents per pound of carcass processed.

The total cost of the disposal was one-third the cost of incinerating the same mix of animals.

"There are so many applications for this unit," Wilson said. "There's the obvious uses in agriculture — farmers could purchase this mobile unit for their own use — and then highway departments for road kill, veterinarians and research institutes."

When the unit is running, it operates at temperatures below boiling.

Information, including detailed step-by-step photos of the process, can be found through the Bio-Response Solutions Web site at www.bioresponsesolutions.com.

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