

IUD For Cattle Is An Alternative To Spaying

South Dakota veterinarian Scott Cammack has developed a simple intrauterine device (IUD) that he says can replace spaying as a method to prevent pregnancies in female cattle. Cammack says “spaying is a process that guarantees infertility, but it can lead to internal bleeding and occasional mortality. The animal that has the procedure also has lost the ability to produce hormones that are beneficial for growth. With this IUD, the animal retains its ovaries and is able to produce hormones that allow normal growth on pasture or in a feedlot.”

Cammack makes the IUD out of copper and nylon. It prevents a female animal from conceiving, yet it doesn't affect the animal's health. The copper is a small piece about the diameter of a lead pencil and an inch long. A nylon cross section that holds the device in place is about 2 in. long. Cammack says the IUD is easy to place in the animal with a modified version of the tool used for artificial insemination (AI).

“The IUD is inserted in the cervix and held in place by the nylon. It isn't painful to the animal, there is no incision or surgery required, and it works very effectively,” Cammack says. “The copper is toxic to sperm, but not the animal. If subjected to sperm it causes an irritation to the uterine lining so the egg won't implant. This interaction creates an inhospitable environment and the egg won't be fertilized and can't develop into an embryo.”

Cammack says his IUD is ideal for cow/calf ranchers who are spaying female beef cattle that aren't intended for breeding stock. The ranchers want to prevent unwanted pregnancies in female cattle that eventually are sold as market weight beef. “Spayed animals also gain weight slower and require more feed to reach market weight,” he says. Cammack is planning a study in 2013 to



Intrauterine device can replace spaying as a method to prevent pregnancies in female cattle. Nylon cross section that holds device in place is 2 in. long.

compare the gain on IUD heifers and a group that has been spayed. “I believe the intact animals with this device can gain about 20 to 30 pounds more than a spayed animal in three months.”

Cammack says he's hoping the IUD can also be used to prevent unwanted pregnancies in female horses. “Our testing shows the device can be used as temporary birth control, and when it's removed, the animal can become pregnant.”

Cammack has a patent pending on the IUD. He says it will sell for \$4 and can be inserted by a technician for a small fee, or by a rancher who has practiced AI.

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Handy “4-in-1 tool” can be used separately as a wire winder or unwinder, post driver, or post puller. “Everything you need to put up or take down electric fence is in this one small cart,” says inventor Malcolm Johnston.



4-In-1 Fence-Building Cart

This handy “4-in-1 tool” is designed for any electric fencing job and can be used separately as a wire winder or unwinder, post driver, or post puller.

“Everything you need to put up or take down electric fence is in this one small cart,” says inventor Malcolm Johnston of Rock Valley, Iowa. “It's so lightweight that you can carry it around in back of your pickup. It works especially well for anyone who moves electric fences around a lot for intensive grazing.”

The Sparky 4-in-1 Wire Wizard is a 2-wheeled unit with a T-handle on back. There's also a drawbar hitch so you can pull it behind a 4-wheeler.

The various parts are attached to the unit's

frame by snap pins. A hand-operated crank is used to operate the wire winder/unwinder which, by loosening a set screw, can be slid up or down on a centrally located shaft. A battery-operated motorized spool is optional.

The post puller consists of one pipe inside another and its length can be adjusted by changing the position of a pin. The post driver actually forms the top part of the post puller.

The standard Wire Wizard sells for \$329 plus S&H; the optional motorized unit sells for \$300.

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Bill Ranallo built this self-loading round bale hauler out of an old pull-type pea viner. Once all 8 bales are loaded, the operator tips bales off the back.

Self-Loading Round Bale Hauler

“It works like a \$20,000 machine. Loads eight bales in eight minutes or less,” says Bill Ranallo, Cumberland, Wis., about the self-loading round bale hauler he built out of an old pull-type pea viner.

The machine is equipped with a pair of hydraulic-operated forks on front, as well as a push plate that moves bales back 2 at a time. Once all 8 bales are loaded, the operator tips the bales off the back.

“I pick up the first bale and as it reaches a 45 degree angle, a metal platform lifts up on the near side and rolls the bale to the far side,” explains Ranallo. “Then I pick up the second bale and it rolls against the first. The next step is to engage a hydraulic cylinder attached to the push plate, which moves both bales back just far enough to make room for the next bale. Once all 8 bales are loaded I activate a hydraulic cylinder to dump the load.”

He stripped the pea viner down to the frame and running gear, then bolted an 8 by 16-ft. “truck rack” on top of the frame to form a

platform. He used 3-in. boiler tubing to build a pair of side-mounted forks that pick up the bale and flip it onto the machine. He added side rails to contain the bales, and a push plate on front. It rolls on a pair of 2-in. caster wheels and is pulled backward by a hydraulic cylinder.

“It works great, and I only spent about \$200 to build it,” says Ranallo. “As the bale is being loaded I can keep driving to the next bale, which saves time.”

“I got the machine and the boiler tubing from Stokely Van Kamp, where I worked for 38 years. I bought the stainless steel pipe that I used to make the side rails from a local creamery, and I salvaged one of the cylinders off an old high lift dump trailer. All I bought was a \$100 lift cylinder and some welding wire and hydraulic hoses. Everything else I found in my junk yard.”

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One of the biggest machines on display at this year's World Ag Expo in California was the self-propelled big square baler built by Kelderman Manufacturing. You can mount a draper-type cutterhead to the front or use a rake-type pickup mounted on the front. Kelderman sold one of the \$500,000 balers at the show to FeedStox, a Kansas-based biomass company that bought the one-pass machine for custom harvesting of biomass across the Midwest and West. The big machine can be used on alfalfa or other hay crops, or to harvest biomass crops like switchgrass. It makes 4 by 4 by 4-ft. big bales and was designed by Kelderman for Freeman Co., a division of Allied Systems Co. FeedStox also bought one of Kelderman's other big new inventions, a 600-hp., 8-wheel big square bale retriever that collects a semi truck load of big bales at a time.