

"It is easier to fool people than to convince them that they have been fooled."

— Mark Twain

I get new-product announcements from beekeeping supply houses all the time. Some really clever ones come from a Chinese company called [Yúrén jié](#). Since few beekeepers are immune to the lure of a nifty new gadget (see [Gadgets, Gizmos and Got-to-Haves](#)), I'll briefly share some of the items from Yúrén jié's April catalog. If you are as impressed with these products as I am, ask for them at your local bee supply store!

Dihydrogen monoxide for Varroa mite control

This product may be the silver bullet that beekeepers have been waiting for with respect to Varroa mite control. [Dihydrogen monoxide](#) (DHMO) is a liquid that innovative beekeepers have been using for many years, mixing it with oxalic acid and then dribbling the solution on their honey bees. Research has shown, however, that at the right concentration and dosage, the oxalic acid is superfluous and the DHMO itself can provide up to 100% efficacy in killing *Varroa destructor*.

Like all pesticides, this can be dangerous stuff to handle. At commonly-found doses it can not only kill mites, but also honey bees and even beekeepers. It so corrosive that it can cause steel to discolor and disintegrate. If it gets in the lungs, it can be particularly harmful. And overdosing, with disastrous consequences, is fairly easy to do. The [CDC](#) says that 4,000 people in the US fatally overdose on DHMO every year, and another 8,000 have a "close call" with a nonfatal overdose.

Despite all of that, the use of pure DHMO isn't strictly governed by FDA or EPA regulations so it is legal to apply to honey bee colonies. It can be purchased off-label in a variety of container sizes at DIY stores and elsewhere. As with any pesticide, avoid aftermarket fakes and You-Tube application instructions. Just because it is all-natural and easy to apply doesn't mean



The Automatic In-Hive Queen Marker allows attendant bees to gently and safely mark queens without any manual intervention from the beekeeper. Note the flecks of yellow paint on the facial hairs of the attendants. Any paint color or pattern can be applied.

that DHMO can't do severe harm to your bees or to you if handled improperly.

Automatic in-hive queen marker

Marking queen honey bees has many advantages (see [Why Mark Queens?](#)). But many beekeepers don't have the dexterity to apply a paint drop, the keen eyesight and visual discernment necessary to find the queen or even the patience to go frame-by-frame trying to find her. A new device solves all of those issues at once, something that no other product on the market even comes close to doing.

The secret to this device is one of those things that will make you slap your forehead and say, "That's so simple! I should have thought of it!" A small vial of [queen retinue pheromone](#) is placed in the center of a disc that resembles an ordinary roach motel. Small paint pads, like those used at the tips of marking pens, are strategically affixed within the disc. The contraption is hung between two frames in the brood nest, preferably ones that contain eggs and empty brood cells. Queen attendant bees smell the pheromone and enter the disc. The entry and exit path is designed so that as the bee travels through the disc, a small dab of paint is transferred onto the hairs surrounding her proboscis. When the attendant bees

subsequently attend to the queen, the paint gets transferred to the queen's thorax.

The brilliance of this new product is its simplicity and convenience. It can be applied by any beekeeper of any skill level, any time of the year. Also, by properly arranging the paint pads (detailed instructions are included), the queen's mark can be customized to create informative patterns. For example, a half-blue, half-yellow mark may be used for a queen that came with a swarm, while a more complex design could be applied for an expensive commercially-purchased queen.

Combination IPM device

A product that appeals to both our desire to use low-impact Varroa controls from the [IPM pyramid](#) and our sense of social responsibility with respect to [Reduce/Reuse/Recycle](#) combines several items that you may already own (they can be purchased separately if you don't have all of them). Called *DroneYumYum*, it is a preassembled combination of devices that integrates all of the components to create a unique value-added hive product. Drone frames (discussed in "[Pretty Green Frames May Not Be What You Think](#)") are used exclusively in the brood boxes, maximizing mite trapping. A mineral oil fogger (MOF), with the mineral oil replaced by extra-virgin olive oil (EVOI), is put on top. A Varroa heat-treatment device (HTD) goes beneath the brood box. A catch-pan is fitted below a standard screened bottom board.

Entrances must be left fully open to allow adult honey bees to escape the chamber during treatment. The MOF is used to saturate the brood area with EVOI. The HTD is adjusted for maximum temperature (the included instructions explain how to modify the device, if needed) and the timer is set to 20 minutes per pound of drone brood.

An optional addition to the process follows the same protocol as the oxalic acid trickle/dribble method that uses a syringe to apply liquid oxalic acid solution between the frames, except the oxalic acid is replaced with organic sea salt.



Drone pupae are delicious with crackers or on their own. The DroneYumYum device combines collection and preparation into one easy step, with Varroa management as an unbeatable bonus.

When the timer goes off, the screened bottom board will be covered with perfectly-cooked drone larvae. See the United Nations' Food and Agriculture Organization (UN-FAO) [guide to value-added products of the hive](#) for serving suggestions. The catch-pan will contain melted wax which can be filtered and used for a variety of projects.

Fool-proof swarm catcher

This device has been around for several years but still isn't widely known in the United States. Price has likely been the main reason for slow adoption, but Chinese competition should quickly bring the cost down to a level that hobbyists can easily afford.

Called *The Little Buckaroo Honey Bee Round-Up*, this product comes with a 100% satisfaction guarantee. The design is so simple and so aligned with honey bee biology that it is curious that it wasn't developed long ago by A.I. Root or C.C. Miller. It eliminates any risk of losing a swarm while also eliminating the stress that ensues from using alternative methods and products.

Based on university research on honey bee behavior, *The Little Buckaroo Honey Bee Round-Up* consists of a special hive entrance, hive cover and patent-pending diversion device. Swarms rush out the entrance and fly through the diversion device to their new home – which is actually their old home! (See photo on next page.) Since their "new" home is already well-

provisioned with honey, pollen and drawn comb, the bees quickly settle in and resume their main function – making honey (aka money) for the beekeeper!

The device safely, automatically and completely collects a swarm without any beekeeper intervention. No more missing a swarm because you were out of town or away at your day job! No more losing half of your colony just before the main nectar flow starts! No more risking life and limb by climbing hundreds of feet up a pine tree to catch that swarm! This device pays for itself with its first few uses.

Limitations

These innovative products demonstrate that beekeepers are limited only by our imaginations and our pocketbooks. Encourage innovation by giving some of these products a try and sharing them with your beekeeper buddies. Rev. Langstroth got started with a single hive and a vision, and we can only marvel at where that has led! Let's make April 1st "Beekeeper Innovation Day" and celebrate all of the great ideas our colleagues come up with! Or we could call it "April Fool's Day" and celebrate with the whole world every year!

With that in mind, happy April Fool's Day!

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The Little Buckaroo Honey Bee Round-Up is a fool-proof automatic swarm catcher. Eliminate swarming without cutting out queen cells, making splits, adding space or any of the other unnatural techniques that beekeepers use, often with very poor results.