Natural Product Eliminates Ticks & Pests

"One of the biggest attractions about Tick-Killz™ is the whole safety profile," says Mark Wilson, owner and co-developer of the 100-percent natural pest control product. Its EPA 25(b) exempt status indicates that it's safe for children, pets, the applicator, and pollinators.

The other outstanding quality of the product is its high percentage of active ingredients—about 55 percent.

In their research and testing, Wilson and his co-developer chose cedarwood oil as the main ingredient.

"Cedarwood oil is the most widely accepted insect repellant and has been used forever," Wilson says. With a little peppermint oil, the smell repels insects, and it can create an effective barrier for about a month against ticks and other pests. The addition of 2-Phenethyl Propionate, which comes from dried foods such as guava, gives TickKillz the power to kill insects hit by the wet application.

"It kills to interrupt reproduction, then creates a barrier. It's a repeated system of kill, then repel to get a property under control," Wilson says. For ticks, that generally requires four applications a season with normal rainfall. Mosquitoes and other pests may require additional treatments.

With experience working in the landscape industry and recognizing the growing threat of tick-borne diseases, most of Wilson's customers are professional landscapers or pest control companies. They offer customers spraying services, typically between April and October. They mix 1 oz. of Tick-Killz with 5 gal. of water and apply about 1 gal./1,000 sq. ft.



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For DIYers, TickKillz comes in a convenient 8 oz. hose end spray unit that can be attached to the end of a garden hose. It's enough to cover about 15,000 sq. ft. At about \$40, it costs more than other essential oil products, Wilson notes, but with its high percentage of active ingredients, it's much more effective.

TickKillz is available on Amazon and through businesses in 42 states, especially in the mid-Atlantic and the Upper Midwest. Wilson invites interested distributors to contact him.

Contact: FARM SHOW Followup, Natural Repellents, LLC, P.O. Box 251, Denville, N.J. 07834 (ph 973-277-3904; mwilson1134@ optonline.net; www.tickkillz.com).

Build Your Own Wood-Fired Pizza Oven

Homemade pizza, one of life's simple pleasures, is all the more achievable if you make a wood-fired micro-oven in your backyard. High-temperature ovens result in crispier crusts and well-cooked toppings, and using wood adds a complex smokey flavor. Full-sized brick ovens are priced in the thousands, but if you have \$250 and a few hours for assembly and heating, you can enjoy your own at home.

One of the simplest methods is demonstrated by Scott Brooks on YouTube. In the video, he uses 16 fire-safe bricks to lay a foundation and then stacks the sides three bricks high to create the base for the fire. Overtop, he places a piece of angle iron on each end and two pieces of flat iron in the middle to support another layer of bricks. Build a fire within the structure and push the coals to the side when you're ready to bake, putting the pizza in their place.

Alternatively, you can follow a more complex design and create a "cooking shelf" above the fire that retains heat and keeps the pizza out of ash. Plans online vary in specifics and quality, which Pizza Ptah of pizzaptah.com found out the hard way. His first attempt, following instructions from a popular YouTube video, left him building a fire directly on the ground, making cleanup all but impossible. Worse, the recommended flagstones cracked at high temperatures, rendering the oven unsafe.

He learned from his mistakes and made a better oven with high-quality, fire-safe bricks. Lead-free firebricks may cost more upfront, but the materials will last longer and better retain heat. The number you need will depend on the design. Pizza Ptah used seventy, paired with four pieces of angle steel and two



Photo courtesy of Pizza Ptah Backyard pizza oven made using fire-safe bricks, angle iron, and flat iron.

pieces of flat steel to form the second story and then the roof. A back ventilation system ensures pizzas become crispy, not soggy. Full pictures and instructions are available at www.pizzaptah.pizza/blog/wood-fired-oven.

Beyond assembly, the key to success is building a good fire. Start several hours before you plan to cook, using small pieces that burn hot and fast. The goal is to have as many coals as possible, as they will better radiate the heat through the entire oven. This creates a solid base for making multiple pizzas in a row. "The longer ahead you start the fire, the better," says Pizza Ptah. "You can never start your fire too early, but you certainly can start too late."



Cameras overhead and outside the coop allow him to check on his flock anytime and double-check that the door opened or closed as scheduled.

"Smart Coop" Monitors Chickens

David Rubenstein's high-tech chicken coop began with his quest to keep his Rhode Island Red flock safe at night with a dependable automatic door. But with two sons with engineering degrees and his interest in technology, the project grew into creating a "smart coop" to remotely control and monitor everything from heaters to environmental elements.

The coop is in a caged area of a room in a building next to a lake adjoining Rubenstein's East Troy, Wis., property. It's perfect for storing boating and other outdoor equipment and provides safe quarters for his flock from predators that live in the adjoining marshland.

After trying a couple of other ideas, Rubenstein installed a 12-volt linear actuator to automatically raise and lower the door.

"It's controlled via software called Home Assistant (www.home-assistant.io). It goes through the Internet, and based on the location and date, it's set to open the door when the sun is 1 degree above the horizon and close the door when it's 4 degrees below," Rubenstein says.

He explains he first used Home Assistant to monitor his home when he went south for the winter. With a radio link and parabolic antenna from his house to the coop, he can monitor many things connected to sensors on a chicken-shaped circuit board.

"Things like temperature, humidity, and gases come through Home Assistant software so I can see them in real-time and graph them for data," Rubenstein says. Smart plugs allow him to turn on 200-watt flat panel radiant heaters mounted on the wall, for example.

Cameras overhead and outside the coop allow him to check on his flock anytime and double-check that the door opened or closed as scheduled. Finally, the coop has its own computer and backup battery in case the power goes out.



With a radio link and parabolic antenna from his house to the coop, he can monitor many things connected to sensors on a chicken-shaped circuit board.

Rubenstein appreciates Home Assistant's alerts and features and the high-tech help provided. He suggests that poultry producers who aren't as tech-savvy contact alarm businesses to help them set up systems.

Rubenstein appreciates that he doesn't have to get up early to open the coop or be home in time to close it. But technology can't do everything. He still needs to feed the chickens, gather eggs, and clean the coop. And though he can protect them in the coop, the chickens are vulnerable during the day when they free-range around the property and provide a valuable service—keeping down the tick population. It was the primary reason he started raising chickens, with eggs as a bonus.

Technology helps him protect his investment.

Contact: FARM SHOW Followup, David Rubenstein, East Troy, Wis.

Gooseneck Spreader Improves Silage Packing

The Zook Pro Flow by Gap View Machine LLC is a gooseneck spreader that works without cables or pulleys. The design increases silage packing to fit more feed into each structure. That helps reduce oxygen levels within the silo and lower the risk of spoilage.

Gap View Machine of Gap, Penn., is a manufacturer of innovative agriculture parts and implements. The company pays attention to detail, using only high-quality, non-imported materials. They aim to save you from wasting time looking for custom parts, instead providing you with what you need when you need it.

The Zook is simple to mount and fill, allowing you to replace your gooseneck for the last time. It's a "set it and forget it" device that requires minimal long-term maintenance. In-built adjustable fins make it customizable for your silo. It was created to eliminate the frustration of gooseneck spreaders that clog and fail to work correctly.

The spreader works seamlessly with high-

powered blowers to eliminate jam-ups. It's

Spreader is designed to work seamlessly with today's highpowered blowers to eliminate jam-ups.

made with welded seams and hot-dipped galvanized metal. No imported stainless steel or metal parts are used, ensuring a rust-free appearance and quality for a lifetime. There's a 12-in. opening for higher capacity and a bolt-on 11-gauge stainless steel top plate.

Quotes are available on request.

Contact: FARM SHOW Followup, Tim Zook, 5302 Denlinger Rd, Gap, Penn. 17527 (ph 717-487-9222; www.gapviewmachine. com).