He Turns Parking Lots Into Gardens

With many inner city areas in decline, an Ohio State University professor has come up with methods for "farming" abandoned asphalt parking lots.

"One research study suggested there's enough abandoned land in Cleveland, Ohio, to feed the entire metropolitan area," says Joe Kovach. "Our goal is to show that we can produce $10,000 worth of produce on 1/8 acre of land."

Kovach has been testing different methods of production. The first is to grow plants in pots set on the asphalt. Deep rooted fruit trees and berries are planted in giant pots with deep-rooted vegetables in mid-sized buckets with drain holes. Shallow rooted vegetables and fruits, such as strawberries and green beans, are planted in wide gutters hung on cattle panels.

The second system involves cutting 3-ft. wide trenches in the asphalt and building low beds over each trench. Kovach hopes to show that taking out part of a parking lot would be cheaper and as productive as taking out the entire lot before planting.

The third system uses raised beds set on the asphalt. The bottom 18 in. of the beds are filled with wood chips with several inches of soil added to the tops of the beds. The chips provide height, drainage and a rooting medium for deeper-rooted fruits and vegetables.

Kovach is planting a comparison garden on a nearby lawn. He notes that lawn areas where abandoned houses and other buildings have been knocked down also may make good areas for urban food production.

"Lead can be an issue, but that's usually localized to where a house stood and paint chipped off," says Kovach.

"Asphalt is largely hydrocarbons and they are hydrophobic," explains Kovach, noting that plant's won't take in hydrocarbons.

Kovach will be continuing all three systems and the control plot, though he already has a favorite. "I'm quite pleased with the trenches," he says.

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Joseph Kovach has come up with methods for "farming" abandoned asphalt parking lots. "Our goal is to produce $10,000 worth of produce on 1/8 acre of land," he says.

Handheld Tach Checks "Coil-On-Plug" Systems, Too

Fine-tune newer, larger engines with "Coil-On-Plug" (COP) ignition systems with the TA500 Smartach+COP from General Technologies Corp. (GTC). Similar to an earlier version (the TA100) reviewed by FARM SHOW earlier this year (Vol. 35, No. 1), the TA500 is a wireless tachometer and engine analyzer. It provides rpm's measurement and ignition peak voltage measurement, recording minimum and maximum levels.

"The TA500 does everything the TA100 does with traditional ignition systems but also analyzes COP ignition systems," says Berge Baronian, GTC.

Baronian explains that COP systems are often difficult to diagnose for misfires and non-starts. Waveforms generated from COP systems are often difficult for conventional scopes to interpret.

The TA500 is designed to operate on distributorless, conventional, magneto and most spark ignition systems on 2, 4, and 6-cycle engines. It works with single and multiple cylinder engines (up to 12 cylinders) and can measure in peak kV or rpm's.

The device picks up readings without being a part of the actual circuit. Simply holding it against wires or near the distributor, coil pack or closely gathered sparkplug/ignition wires is enough.

Professional mechanics commenting on the TA100 felt it had limited application in newer engines. Those concerns appear to have been resolved with the TA500 COP capability.

Uses for the handheld unit include identifying individual cylinder and overall rpm's, as well as the relative strength of ignition pulses in spark plug wires and in the COP unit. High voltage readings can indicate too wide a spark plug gap, too lean a fuel mixture, damaged, loose or disconnected wires, or a broken core wire.

Abnormally low readings can indicate spark plug problems, broken core wires, short circuits or partial-to-full disconnections, a rich fuel mixture or low cylinder compression pressure.

"You may suspect or be certain of a problem, such as a missing cylinder, but the TA500 makes it easy to quickly find the component causing a problem," says Baronian.

A quick internet search for the TA500 revealed prices ranging from near $200 to more than $275.

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TA500 is a wireless tachometer and engine analyzer that lets you fine-tune newer, larger engines equipped with "Coil-On-Plug" ignition systems.

He Composts City's Leaves, Grass, And Brush

Dick Gallien says his cows and goats start the composting process for lawn clippings dropped off at his community compost site. Signs point visitors from nearby Winona, Minn., to drop off grass clippings and other yard waste at the edge of the cow yard. Periodically he pushes what remains out of the paddock and onto a big compost pile, working and turning the material with a bulldozer. Brush that is dropped off – for a fee – has other uses.

"I started the site 19 years ago, and we're open every day from dawn until dark," says Gallien. "I wanted to enrich the depleted soil on my farm. It has the added benefit of connecting townspeople with the sights and sounds of a small farm."

Gallien says his compost site is fully permitted by the nearby city of Winona. It also is a working farm. Visitors are encouraged to tour the farm and nearby woods and stream. Gallien also invites student groups and others to tour the compost/farm site.

A card with fee schedule for brush drop off sits on a box by the driveway. While leaves and grass can be dropped off at no charge, brush fees range from $1 for a garbage bag, up to $10 to $12 for a pickup load or up to $100 for a dump truck load.

Rather than stand by and collect, Gallien and his wife rely on the honor system. Gallien admits some people simply dump their brush and drive away. The couple is setting up video cameras with internet connections in hopes of "encouraging" more to pay.

Gallien sometimes chips the brush and adds it to the compost pile. He also burns it in an on-farm boiler.

The drop off center really gets busy in the fall. The city's own recycling center is open only for limited hours and refuses to take leaves, so Gallien gets them all.

"We have a steady stream of people driving in and out on weekends and holidays," says Gallien. "Even during the week, there are people who drop off lawn clippings and watch our goats and cattle gather round for a treat."

In truth, he gets so many yard clippings and leaves that he can't use all the compost. He encourages people to help themselves and take whatever they need.

"If I screened it and tested it, I could bag it and sell it, but I would rather people just took it," he says.

After he harvests his fields of hay, Gallien spreads compost with a 425 bu. spreader. It's a process that he has repeated for years with good results.

"There was a brickyard next door to our farm for many years," he says. "Brickyard clay is what the soil was here. With all the compost I've spread, the soil has changed a lot over the years."

City folks dump their yard waste onto Dick Gallien's community compost site, and goats dig into it. Occasionally he bulldozes what remains onto a big compost pile.

Now nearly 80, Gallien maintains the site largely so people in the area have a place to take their yard waste and leaves. A long time organic farmer, he hates to see potential compost simply burned.

"Check with your nearest town," he says. "You can get organic matter delivered to build up your soil and perhaps get paid for it, too."

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