

If you're looking for new ways to add to your bottom line, take a look at the money-making ideas featured here and on the next page.

If you've found or heard about a new income-boosting idea, we'd like to hear about it. Send details to: FARM SHOW Magazine, P.O. Box 1029, Lakeville, Minn. 55044 (ph 800 834-9665) or email us at: editor@farmshow.com.



Plans and components for Russ Finch's "underground" greenhouse, first featured in FARM SHOW 3 years ago, are now for sale.

He Helps Others Build "Underground" Greenhouses

Russ Finch has plans and components available for his in-ground, heated greenhouse first featured in FARM SHOW'S Vol. 37, No. 2. Finch calls it the "Greenhouse in the Snow" and there are now 17 full-size units in place across 6 states and Canadian provinces. A full-size unit is at least 54 ft. in length; however, units as big as 96 ft. are in use to grow fruits and vegetables year-round.

"Our 78-ft. long and 17-ft. wide design is the most popular," says Finch. "If you have access to a backhoe and furnish the labor, a full-size unit should come in at around \$22,000, fully automated."

That price includes the cost of fans and 250 ft. of 4-in. diameter plastic tubing required to keep temperatures in the greenhouse above 28 degrees. A 78-ft. greenhouse requires 13 of the 250-ft. tubes buried 8 ft. deep to tap the year-round 52-degree temperature of the earth. The dirt floor of the greenhouse is 5 ft. below the surrounding ground surface.

"Only about 200 ft. of tubing is actually in the ground," says Finch. "The rest of the closed loop system is used entering and leaving the greenhouse."

Finch offers the twin-wall, Lexan polycarbonate panels and the framing for the south sides of his greenhouse design. Materials to erect in-ground walls and the "back" side of the structure are available



Finch is shown here with mature citrus trees grown in his greenhouse.

at any home supply store, as is the 4-in. diameter tubing.

"Our materials cost about \$122 per linear foot (available in 6-ft. increments)," says Finch. "The construction and fabrication plan package is available for \$49."

Finch also sells his Citrus in the Snow digital report on the geo-air energy system and how it works. The report includes color graphics, notes and comments. It can be downloaded online for \$24.

Check out a video of Finch's greenhouse at www.farmshow.com.

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Greenhouse is buried 5 ft. below ground. There are now 17 full-size units in place across 6 states and Canadian provinces.



Heinz Thomet says the "no-paddy" dryland rice he grows is in big demand. Photo shows a Japanese rice variety called Koshihikari.

"No-Paddy" Rice In Big Demand

Heinz Thomet doesn't understand why more market gardeners don't grow upland rice. The fresh harvested rice he grows sells at a premium over other grains he sells – wheat, barley, rye, hullless oats, and sorghum.

"I can sell more rice at \$10/lb. than I can wheat or oats at \$3/lb.," says Thomet. "Fresh rice is a different taste experience over store-bought rice."

Thomet had wanted to try dryland rice ever since reading about a guy growing rice in upstate New York 20 years ago. When he first started Next Step Produce, his 86-acre, certified organic farm, he concentrated on vegetables and grains that were sure things. In 2011 he was able to start experimenting with the rice on his southern Maryland farm.

"We tried paddy rice, but the ducks ate it," he recalls. "Also, our soil was too sandy to hold water. Then we tried dryland rice, and it worked."

Thomet started small. His biggest problem was finding a source for seed. Commercial rice seed providers in Louisiana wouldn't even return his calls. Specialty seed providers like Southern Exposure Seed Exchange had a total inventory of only 3 lbs.

Eventually he tried a Japanese variety, Koshihikari, that did well in his soils. A U.S. variety called Blue Bonnet from Baker Creek Farms also did well. None of the available rice seed is cheap. Baker Creek offers Blue Bonnet upland rice at \$2.75 for 100 grains. Fedco Seeds sells a Russian variety called Duborskian, which can be grown as far north as Maine if germinated inside and

transplanted into warm soils. Prices for it range from \$1.90 per gram of seed to \$98 for 112 grams (4 ounces).

By 2013 he had his system in place and harvested 400 lbs. of short-grain brown rice. He treats the rice like a vegetable, starting it in his germination house before transplanting it to bare ground or plastic covered mounds. Drip tape delivers water twice a week as needed.

Thomet notes that rice is a very management intensive crop. Weed control is a challenge, and it is the main thing that keeps him from expanding rice production. Flooding rice is actually a weed control practice.

"Rice doesn't need to be flooded, but it does need a lot of water," he says. "If it doesn't rain, we use the drip irrigation. It is also very nutrient intense."

By late summer the rice is ready to harvest. Thomet uses an Allis Chalmers All-Crop for all his grains, including sorghum. He advises not hulling rice until it is ready to bag for sale.

"We are at the same parallel with Morocco," says Thomet. "Rice is also grown farther north in Japan, Spain and Italy. We are in the right spot at the right time to grow rice here."

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Thomet rigged up this tractor to lay drip tape along rows.