"Any remodeling or building done today that doesn't use passive solar is obsolete the day it's finished," says Shanks.

ALSO PROVIDES PANORAMIC VIEW

Greenhouse Cuts Fuel Bill 50%

By Dal Grooms

Those who know Iowa farmer Burton Shanks, of Mason City, probably wouldn't describe him as a crowd-follower. After all, how many farmers do you know with a greenhouse attached to their home? But if you asked Shanks how he came to build that greenhouse on his home, he'd tell you, "I went where the crowd was gathered."

Shanks is referring to a meeting he attended for architects and contractors in Minneapolis 2 years ago. (Besides farming, Shanks also does contracting and building work.) He was on the lookout for energy saving ideas in order to combat the yearly increase of his LP bills. Besides that, he wanted a place where he could grow plants all year long.

When Shanks got to the product display floor at the meeting and saw all the people who had crowded around a greenhouse addition put out by English Greenhouse of Camden, N.J., he knew his answer was in that greenhouse. Before leaving Minneapolis, he ordered a greenhouse from the distributor.

By January 1981, Shanks and his wife, Jeanne, were sitting in their greenhouse enjoying its warmth while winter winds blew around them.

Shanks said the greenhouse cut fuel consumption in his older home by 30 percent.

The LP bill for the 69-year-old house in 1979-80 was $1,079. After the 1981-82 heating season, Shanks happily reports that his fuel bill was only $300. Although this is actually a 72-percent drop, Shanks attributes some of the savings to insulation he has done around the base of his home.

If LP prices continue to rise at a projected rate of 18 percent per year, Shanks figures he can pay for the greenhouse in about 12 years through energy savings alone.

Recently, Shanks put up an 8 by 24 foot greenhouse on another home that cost $10,540. The greenhouse kit itself costs about $7,000. Added costs include digging the footings, the flooring material, a thermostat, fan, supplementary heat (if desired) and shading treatment.

The floor surface in their greenhouse is a mixture of pea gravel and epoxy and resin, but Shanks said any material that will absorb heat, such as slate, would make a good floor covering. He also recommended that the outside wall of the house where the greenhouse is attached be a dark color so that it absorbs heat, too.

"Most of our heat gain comes between 9:30 and 4:45," Jeanne said. Evidence of the amount of heat that is gained through the greenhouse is in the records Shanks kept last winter. On Feb. 9, the outdoor temperature was 0 degrees Fahrenheit. The greenhouse temperature that day ranged from 20 to 92 degrees. The heat that was brought into the home held the inside temperature at 69 degrees without using any supplemental heat source.

If that much heat is generated in the winter, a prospective greenhouse builder might be concerned about the heat that is available in the summer. "We did get more heat than we bargained for," Jeanne said, but that problem is remedied several ways.

First of all, the Shankses have several deciduous trees south of their greenhouse. The leaves help shade the greenhouse in the summer, and when the trees shed their leaves in the fall, more sunlight is allowed to enter through the glass.

The couple also applied a 3M film shade to the roof's glass to cut down the sun's rays by 85 percent in the summer. This does not block the sun out in the winter when it is lower in the sky. These shades were relatively inexpensive — $100 for the whole room — compared to motor-drive shades which would have cost $4,000.

The third alternative the Shankses use for blocking off excess heat is to close the door between their house and greenhouse.

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Nine coulters mount in front of the tractor to cut through trash before chiseling.

LETS YOU KEEP YOUR OLD CHISEL PLOW

Front Disc Cutter "Saves" Old Machine

B.L. "Butch" Uhnken didn't want to buy a new chisel plow, outfitted with cutting discs, to cut through cornstalks and he didn't want to make a separate trip through his fields with an offset disk. Instead, he designed a front-mounted toolbar outfitted with coulters that do a super cutting job and let him pull his old chisel plow behind.

The 16-ft. dolly-type toolbar in front carries nine coulters off a planter, each mounted to line up in front of a chisel shank behind the tractor. The dolly is mounted on a universal joint type hitch that flexes up to 45° in every direction over uneven terrain.

"It moves along easily and doesn't require additional tractor horsepower because the chisel plow pulls easier after the front unit cuts through the residue," explains Uhnken.

The framework of the front-mounted unit is about .5 ft. long. Uhnken notes that the front toolbar can easily be outfitted with Danish tines or other tillage tools in the spring.

Uhnken is building the new front-mounted toolbar himself. Units are custom-built to match your chisel plow. The 16-ft. model, for example, sells for $2,800 without coulters. Uhnken says coulters off plows or planters will work on the machine.

For more information, contact: FARM SHOW Followup, B.L. "Butch" Uhnken, 25 Westfair Drive, Jacksonville, Ill. 62650 (ph 217 245-4359).

Jeane Shanks especially likes the greenhouse because "it keeps me in touch with nature."