



Layer of insulation beads can be blown in to fill window (as on left) or blown out to provide clear view (as on right)

INSULATION BEADS BETWEEN PANES CAN BE BLOWN IN OR OUT AT FLIP OF SWITCH

New "Bead Windows" For Farm Homes

Now you can have your energy cake and eat it too when it comes to large window walls. Notorious for wasting heat to the outdoors, window walls can now be installed with "portable" insulation, made up of tiny beads of polystyrene. The beads are used to fill the space between two panes of glass spaced 2½ in. apart.

The new "Bead Window" system involves a hidden motor, switch, tubes and a storage tank for the beads. If you want the window wall as a see-through window, such as during the day, leave the beads out. If you want an insulated wall instead, such as at night or on an extra cold day, just flip a switch and the beads are blown into the 2½-in. cavity, completely filling it from top to bottom. The view outside, of course, is blocked, but the window wall now becomes heavily insulated against extreme cold in winter, or extreme heat in summer.

According to the manufacturer, Zomeworks Corp. of Albuquerque, N.M., the R factor of a 2½-in. core window with the beads in is 8. With the beads out, the R factor is only 1.5. The window cavity also can be partially filled with beads to any height, up from the bottom.

The Bead Window concept is being used in passive solar collector glass walls, with beads out during the day for solar collection and beads in at night to hold in the heat that was collected during the day.

Jan and John Harrison, of Kingdom City, Mo., have a new Bead Window in their farm home. It measures 8 x 7½ ft. in two sections. Jan Harri-

son told FARM SHOW they are very satisfied with the system. "It works beautifully. A regular window wall without the beads would lose us about \$45 worth of heat in a winter. If we keep the Bead Window full all winter, the heat loss is only about \$5." Beads blow in at the top, are sucked out at the bottom, and are about the size of the BB's in shotgun shells.

Bob Cusick, a Mexico, Mo., extension home management specialist who worked with the Harrisons on their window, told FARM SHOW that a person can easily feel the difference in temperature when standing beside the window with beads in and beads out. Time required to fill the cavity with beads is about 3 min. he says, and the motor can be heard only if you are standing right beside the window.

Zomeworks officials note that unbreakable tempered glass is required, and that it should be 3/16 in. thick. A bead window wall can be built into a new home, or adapted to an existing one. However, there has to be a place, such as an attic nearby, to place the bead storage tank, which is about 32 in. wide and 56 in. high.

Cost of the system, not counting glass or the window frame, is \$433. It can be made to fill and empty automatically on a timer at additional cost.

For more information, contact: FARM SHOW Followup, Zomeworks Corp., P.O. Box 712, Albuquerque, N.M. 87103 (ph 505 242-5354).

FARM SHOW

New Products Especially For Women And The Farm, Ranch Home.

"GREAT GIFT FOR KIDS, SHUT-INS, AND APARTMENT DWELLERS"

Bird Feeder Mounts Right On Window

Watch birds fly right up to your window with this new close-up window bird feeder from Candela II Associates, Long Lake, Minn.

The feeder consists of a 6½ by 3½ by 1¾ in. deep tray attached to a 6 by 7 in. back. The tray-holder, back and roof are all formed from a single piece of clear acrylic plastic. The slanting roof extends beyond the width of the feeder to help protect the feed from rain, snow or wind.

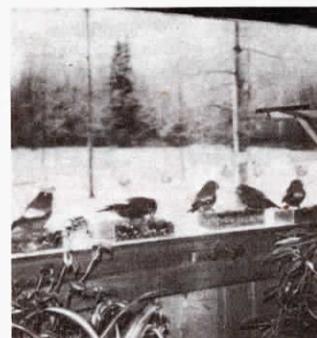
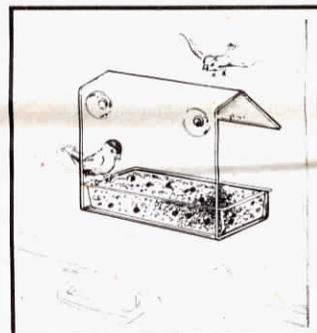
The feeder attaches to glass windows (or sliding doors) by 2 nylon suction cups. Their "all-weather" grip was successfully field tested for three years near International Falls, Minn. The cups are mounted near the top of the back-piece so that the viewer can get a full view of birds as they feed.

The feeder is designed so it can fit on the smallest pane of multiple-pane windows. It can easily be moved by sliding a knife under the suction cups to break the seal.

"It's a great gift for anyone, but especially for kids, shut-ins, and apartment dwellers," notes Mickey Owens, sales manager. "Birds get used to kids when the feeder is set low, and they will also find the feeder even if it's mounted on a second or third story window."

Though size of the feeder makes it ideal for smaller birds — since they can climb right into the tray — birds as large as a pileated woodpecker have fed on it without breaking it or damaging it, says Owens.

He points out that, since the feeder is made of clear plastic, viewers can get close enough to birds to take pictures with Polaroid or other camera, without having to use special lenses. "The feeder also is virtually



Viewers can get close enough to birds to take pictures.

squirrel-proof, since they can't climb on slippery glass windows or doors."

The feeder, shipped ready to use, is available to FARM SHOW subscribers for \$9.95, including mailing and handling, an 8 oz. sack of bird feed and 3 plastic trays.

For more information, contact: FARM SHOW Followup, Audubon Division, Candela II Associates, P.O. Box 326, Long Lake, Minn. 55356 (ph 612 473-0990).