



Metal roof snow fence fastens with clamps or brackets. Continuous system attaches near roof eaves.

Snow Guards Keep Snow On Metal Roofs

Snow and ice buildup on metal roofs can be a safety issue for property and people if sheets suddenly slide off at once. S-5! tackled this problem by developing its roof-mounted snow retention fences for metal rooftops.

Snow retention systems increase friction between the snow and the roof, allowing it to evacuate in a controlled manner.

Rob Haddock, CEO and S-5! founder and inventor of their unique clamping system, says the company's continuous, horizontal snow fence is assembled laterally across a roof at or near the eaves. Depending on conditions, it may also be repeated in parallel rows up the slope of the roof.

For accurate installation, it's important to determine the right type of snow fences and best spacing based on roof pitch, load and climate, plus choose a design engineered to resist the forces that'll try to rip fences from their mounting.

S-5! Snow Guards are easily installed by either fastening non-corrosive clamps or brackets to the roof ribs or to the roof itself using self-tapping metal screws. Rails secure

to this hardware with screws or nuts and bolts.

Other considerations include verifying metal compatibility and matching the corrosion resistance to the panel material and color. With penetrative applications, it's important to confirm the chemistry and longevity of any sealant.

"Our product is non-corrosive and lasts the life of a roof," says Fiona Maguire-O'Shea, S-5! Public Relations Representative. "It's used on homes, commercial buildings, airports, warehouses and farm buildings throughout the world."

Since each roof is unique, S-5! suggests interested customers contact them directly or through their nationwide distributors for pricing, availability, and choice of optimal products.

The Snow Guards are manufactured in Texas.

Contact: FARM SHOW Followup, S-5!, 12730 Black Forest Rd., Colorado Springs, Colo. 80908 (ph 888-825-3432; info@s-5.com; www.s-5.com).



Installing the blades doesn't require any bucket alterations. "Our clamp-on plow design is unique; they clamp onto the bucket with a full underframe and two top clamps, making the bucket stiffer," explains Bentley.

Snowplow Attachment Suits Compact Tractors

Earth & Turf Attachments of Atglen, Penn., offers a range of snowplow attachments designed for compact tractors. John Bentley founded the business in 1997 to provide small family farms with equipment that meets their needs.

About 12 years ago, Bentley's neighbor approached him with a request. "He had a snowplow for his truck, and he wondered if I could adapt it to clamp on his tractor," he says. "I worked with an Amish friend to build a unique clamping system for attaching it. It worked, and it even made the bucket stronger."

Bentley let his friend have the snowplow for free, with the understanding that he could borrow it. "I love plowing snow, and as I used it, I realized there was likely a market for this kind of attachment." He released the attachment to the public soon after, and sales have snowballed.

Different models have bucket clamp-ons, universal quick attaches, Euro hitches and mounts for Yanmar, John Deere or Kubota loaders. Each blade has a bolt-on reversible cutting edge, which provides two cutting surfaces from one blade.

Installing the blades doesn't require any bucket alterations. "Our clamp-on plow

design is unique; they clamp onto the bucket with a full underframe and two top clamps, making the bucket stiffer," explains Bentley. "We've never had a single issue with tractor buckets that use our plows."

Blade sizes include 84 in., 90 in. and 96 in. width; each is 26 in. in overall height. For tractors 30 hp. and under, 60 in. and 72 in. by 19 1/2 in. blades are available. Quotes are available on request. "Our prices are highly competitive," says Bentley. "The snowplows start around \$1,700."

Earth & Turf will paint the cutting edge to match the color of the tractor on request. Bentley's also happy to take on custom work. "Many of our products today started as custom work, and we learned there was a bigger market for them."

Looking forward, innovation continues to be a top priority for Bentley. "Another product we're excited about is our hybrid grapple, released just last year. There's nothing else on the market like it."

Contact: FARM SHOW Followup, Earth & Turf Attachments, LLC, 708 Steelville Mill Rd., Altglen, Penn. 19310 (ph 877-800-6625; info@earthandturfattachments.com; www.earthandturfattachments.com).

They're Growing Peaches In Cold Climates

Dan Shield markets organic peaches and apricots in Minnesota. High tunnels provide an extended season, and black plastic silage tarp delays the bloom until the threat of frost is over. With these and other tools he developed, he's produced as much as 120 lbs. of peaches from a single tree. Some peaches are 3/4 lb. in weight and 4 1/2 in. across.

"I put up a 54 by 34-ft. high tunnel in 2014 and planted 49 cherry trees and three peach trees," recalls Shield. "In 2017, the cherry trees produced hardly any fruit, but the peaches produced 50 lbs. each. I tore out the cherries and planted more peaches and half the tunnel to apricots."

Since then, he's added a 72 by 34-ft. high tunnel devoted entirely to peaches and is planning a third for more peaches and apricots. The first tunnel was completed with a Sustainable Ag Research and Education (SARE) projects grant. The second was through an NRCS EQUIP grant, as will be the third.

The goal of the three grants is to identify the tools and knowledge needed for peach and nectarine production for local consumption. One aspect is comparing peach varieties that thrive in Zones 4 and 5 to those that can survive and thrive (with help) in Shield's zone 3 to 4 climate, which can dip to -45 F.

Shield's system overlaps the high tunnel clear plastic with a black/white silage tarp in the late fall. He attaches it with wiggle wire, and the plastic shrinks tight as temperatures cool.

The tarp serves multiple purposes. It prevents heat spikes and double-seals the high tunnels against gaps or cracks that could let cold air in. With its white side up, the silage tarp reflects winter and early spring light until frost is no longer a concern. Once the tarp is removed, the trees rapidly flower.

Shield covers the ground under the fruit trees with black/white plastic, also white side up. The plastic ground cover holds moisture in the soil, reducing humidity in the high tunnel and weed pressure. Once the trees have leafed out, the white plastic reflects light into the canopy. It counters the 15 to 20 percent of light lost due to the clear plastic tunnel covering.

"I've actually developed a tan under my chin from the reflected light after spending only two days in the tunnels," says Shield.

The ground cover tarp also reduces pest pressure, as plum curculio is a major threat. If an egg laid in the tree pupates and drops to the plastic as a larva, it can't drill into the earth to develop. Breaking the pest life cycle is important to Shield's organic production.

Extreme cold weather requires backup heat, even with the silage tarp and the high

tunnel plastic. If the temperature falls into the danger zone, a thermostat activates heat tape strung through the trees. Kerosene heaters also serve as a backup.

Shield gives the trees in the high tunnel a 5 to 7 ft. space versus putting them on 12-ft. centers if planted outside. He uses a rootstock that works in clay loam soils. Combined with selected varieties, the program has been more than successful.

"I have a waiting list for my peaches," says Shield. "People make an appointment to pick them up when ready and pay \$4 per pound. I have no problems selling out."

Shield estimates a 2,500-sq. ft. high tunnel of peaches can make \$11,000 in a good year. "I'm looking for cultivars that'll bear throughout the season, from the end of July through the end of September," says Shield. "People ask me why grow peaches in this climate. People love them, and we're reducing the carbon footprint by what could be thousands of miles of transport. We produce tasty peaches that are profitable for the farmer and don't require fungicides and herbicides."



Inside high tunnel after silage tarp has been removed and trees have leafed out.

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