

Portable Shade Fights Heat Stress

By Gilda V. Bryant Contributing Editor
Photos courtesy Shade Haven



WISCONSIN BEEF PRODUCER VINCE HUNDT had searched for portable shade to protect his cattle from heat stress during stifling summer temperatures and high humidity. Unable to find a product to fit his needs, Hundt collaborated with Guthrie Knapp and Peter Bergquist. Armed with degrees in architectural studies and civil engineering, respectively, the trio developed their first portable shade unit in 2012.

After fine-tuning the design, models went on sale in 2013. This unique, mobile shade can be used with dairy or beef cattle and is convenient for ranchers and farmers to move between pastures and to set up.

Peter Bergquist, CEO of Shade Haven, says the units are constructed with steel frames.

The base is mounted on a Torflex trailer axle with a dolly attachment on the front. The tripod frame has galvanized steel trusses on top that support black shade cloth. The material is either knitted polypropylene or polyethylene. This porous fabric is breathable, allowing air to circulate, further cooling animals. Also used in the nursery industry, it provides some UV protection for cattle.

"We wanted our structure to be easily towable with a four-wheeler [ATV], tractor, SUV or truck," Bergquist recalls. "Most people use an ATV in the pasture, although some of our customers have used horses."

There are two sizes of Shade Haven units. The SH-1200 provides 1,200 square feet of shade, enabling 50-70 animals to benefit from shade at different times of day. The SH-600 supplies 600 square feet of shade for 20-30 animals.

"We designed the structure to withstand up to 50 mph gusts with 30- to 40-mph sustained winds," Bergquist explains. "We have had structures in higher, intense events as well. It can be easily collapsed within a minute ... to prevent any damage, and once it is, it's rated for anything."

Units are sold with a five-year warranty. Bergquist says they have been in the field over six years with minimal warranty issues or defects.

This device was developed to prevent heat stress in cattle. Heat and high humidity often decrease reproduction rates and reduce average daily gain, milk production and feed intake. Once cattle body temperatures rise due to direct sunlight, their ability to disperse heat is reduced. In extreme cases, heat stress may result in death. Some experts suggest that shade reduces radiant heat up to 40 percent, effectively cooling animals.

Shade Haven does more than simply decrease heat stress in cattle. It also prevents livestock from spending excessive amounts of time along a tree line or fence line, depositing manure and nutrients that could be going back into the pasture. In a rotational grazing system, the movable shade allows manure to be spread more evenly across the ground, supplying nutrients to soil and plants.

"If you're bringing [the animals] back to the homing area or barn, or where you feed them, you're spending more in time and feeding costs because they're not in the pasture eating the forage that is available there," Bergquist reports.

"If ranchers are not already using managed grazing or rotational grazing practices, I strongly encourage them to evaluate what that could mean for their operations. The financial benefits of lower costs of operation and more output in terms of how many animals you can stock are beneficial."

Some producers have moved the shade units to under-grazed areas to encourage browsing. This benefits both the cattle and the operator. The animals have new prime grazing areas and the farmer doesn't have to buy additional hay and other feedstuffs. Conversely, producers can also use these shade units to keep cattle away from over-grazed areas. Shade Haven structures can also be moved to cleaner, dryer locations to prevent hoof problems, mastitis and other health issues.

"We understand the benefits of having mobile shade," Bergquist concludes. "After speaking with our customers, [we learned] mobile shade has changed their operations. Grazers who have used a Shade Haven would never go back to what they did before. From a financial and animal welfare standpoint, mobile shade offers an impressive return on investment in terms of improved animal and pasture health, production and profitability." ■



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www.shadehaven.net.