

American Agricultural Spray Foam Insulation



SAVES ON ENERGY COSTS • CONTROLS MOISTURE • PROVIDES CONSISTENT TEMPERATURE CONTROL
HELPS ELIMINATE AIR INFILTRATION • LOWERS OVERALL OPERATING COSTS



800.346.8229 | www.NCFI.com



An American SPF insulation system designed to:

- Save big on energy costs
- Control moisture
- Provide more consistent temperature control
- Eliminate air infiltration
- Lower overall operating costs

AgriThane™ is the most energy-efficient, closed-cell spray foam insulation system available for agricultural applications. Our SPF insulation can save the agricultural business owner considerably more on energy costs compared to traditional insulation. **AgriThane** helps eliminate air infiltration allowing for a more consistent and controlled environment for poultry and livestock. It can also be used for insulating liquid storage tanks, freezers, and cold storage facilities for storing perishable items, such as potatoes, onions, tomatoes, and nuts, among others.

The Problem

Rising energy costs cut into the bottom line of agricultural business owners and operators.

The cost of heating and cooling poultry houses, hog barns, farrowing houses, equine barns, and cold storage facilities is becoming a greater operating expense. Plus, traditional insulations are weak moisture and air barriers and do little to control the interior environment of a building.



The Solution

AgriThane is a 2.0 lb/ft³ density, closed-cell foam insulation that goes on as a liquid, filling the cracks and crevices prior to expansion, adhering to virtually any clean and dry substrate and forming a fully adhered, seamless insulating system. **AgriThane** offers exceptional insulating performance that can reduce energy costs, considerably.

It forms a water barrier, sealing the structure to prevent moisture penetration. It also blocks air movement and has a low water vapor permeance, which controls moisture vapor movement. It can be used to completely seal bottoms or tops of grain storage silos, either concrete or galvanized steel, and livestock or poultry feed storage bins. **AgriThane** also adds structural rigidity, and can help “tighten” older buildings made of metal or wood.

The End Result

A superior agricultural insulation system that increases energy efficiency, reduces operating costs, helps achieve increased production by stopping loss. By investing in **AgriThane** you're getting a highly energy-efficient, high-performance insulation system that also acts as an air barrier, moisture barrier and, in some cases, a structural complement to older metal or wood structures, and additional long-term savings can be achieved.





The Many Uses of AgriThane

Because of **AgriThane's** superior insulating power, airtight closed-cell formulation, and simple spray-on application, its uses in an agricultural setting are virtually limitless. Here are a few ways **AgriThane** can be used to cut your costs:

Liquid Storage Tanks

AgriThane can be sprayed directly on vertical or horizontal tanks of any shape, making it an excellent choice for insulating tanks and storage vessels for liquid materials such as water, fats and oils, and slurries. It can also be applied for insulating processing tanks used in the beverage and spirit processing industries.

Cold Storage and Freezer Applications

AgriThane can be used in the design and construction of cold storage and freezer facilities used to store fruits and vegetables, nuts and other perishable food items. It helps assure constant temperatures and the closed-cell design means much lower water vapor perm values per inch. It's also an excellent insulation for processing plants, refrigerated warehouses and distribution centers.

Metal Buildings, Pole Barns, Sheds and Structures

AgriThane is an excellent choice for the farm or ranch to insulate various types of out buildings such as workshops, equipment storage, bagged or bulk feed storage, and general use type structures. It will help keep work areas comfortable in winter or summer, and will actually "tighten" a building constructed of metal panels and add to its structural integrity. It also reduces interior noise levels.

Grain Storage and Silos

AgriThane can be used to help control dust and moisture problems experienced around grain and animal feed storage by sealing cracks and seams along exterior and interior bin bottoms or tops. It also helps reduce insect migration and can conserve heat during drying. It provides an airtight seal that reduces waste during fumigation of grain storage facilities. When used with NCFI Polyurethanes EnduraTech™* line of premium roof coatings, **AgriThane** can also be used to refurbish old or weathered silo tops, eliminating the need for any costly replacements or repairs.

Livestock Housing

AgriThane can be used to insulate dairy barns or milk houses, swine holding or farrowing houses, horse barns, and cattle barns. It provides consistent temperature control to reduce stress levels in livestock caused by temperature extremes during summer or winter months. It can also be used to reduce radiant heat under sheds and covers during summer months.

Poultry Houses

AgriThane can be used in existing houses, new houses or for retro-fit projects. It is a superior choice for solid or curtain wall designs. By eliminating air infiltration, it can increase tunnel fan operation. It can also improve the structural integrity of older style houses. **AgriThane** can be formulated and applied in black providing blackout conditions.

*EnduraTech™ Premium Coatings give long-lasting protection when used on metal roofs, tanks, silos, and other agricultural projects.



How AgriThane™ Spray Foam Insulation Works

AgriThane spray foam insulation is a two-part system, formulated from renewable agricultural resources, spray-applied by trained applicators. The liquid quickly fills all gaps, cracks, nooks, and voids, expands to size, and cures in place to form a fully adhered, solid, monolithic insulation envelope that is a highly effective air and moisture barrier. **AgriThane** is available in natural or black for poultry house blackout conditions.

Benefits

AgriThane can save agricultural business owners and operators money by making their structures highly energy-efficient.

- Saves considerably on monthly energy bills
- Provides superior R-value 6.8 per inch, reducing both heating and cooling costs
- Creates an air barrier that eliminates leaks and energy loss
- Controls moisture to help prevent mold and mildew
- Reduces your energy consumption, lessening your environmental impact
- Provides consistent temperatures – no drafts, no cold or hot spots – for better production by poultry and livestock and less loss of stored harvests
- Provides blackout – normally, golden foam is also available in black to provide blackout conditions that have been shown to improve growth rates in poultry
- Contains renewable agricultural resources
- Never settles, shrinks, compresses or sags, maintaining its insulation efficiency for the life of the structure
- Strengthens walls and increases overall structural integrity by adhering and bonding to the wall surface
- Damp-proofs by creating a seamless membrane between the inner and outer walls
- Has proven insulating power – spray polyurethane foam systems have been used successfully in agricultural applications for 35 years

About NCFI

An Innovative Leader for Five Decades

NCFI has been an industry leader and innovator of spray foam insulation and roofing systems solutions since 1964. NCFI's superior insulation and roofing technologies not only help families and commercial businesses save on heating and cooling costs, they help secure homes and commercial facilities against some of nature's harshest forces. We also sell and service the equipment to facilitate these applications, assuring end-users a single, reliable support resource for their foam-in-place operations.

Highest Product Quality Available

We start with the finest raw materials from proven, reliable sources to develop our high-quality, advanced spray polyurethane foam and premium acrylic coatings. Our high-performance products must pass an array of quality control measures before ever reaching the job site. All ingredients are accurately weighed and blended for optimum performance. All systems are quality-control tested for conformity to NCFI specifications. Our spray polyurethane foam is shipped from our manufacturing facilities to meet your specific project requirements.

AGRITHANE SPRAY FOAM TYPICAL INSULATION PHYSICAL PROPERTIES*

Description	Closed-cell spray polyurethane foam
Closed-cell content	Greater than 90%
Density	~1.90 to 2.1 lb./ft. nominal (ASTM D 1622)
R-value	>6.8 @ 1" (ASTM C 518)
Compressive strength	>25 psi (ASTM D 1621)
Moisture vapor permanence	1.3 perms
Water penetration	No failure @ 56 ft. Head pressure (AATCC 127)
Air permeance	0.000 ^{cfm/ft2} @ 1.57 psf (ASTM E 283)
Resistance to solvents	Excellent
Max service temperature	180°F

*Physical properties may change based on job specifications.

Using less energy helps the environment. Agrithane™ can help cut your energy use and reduce your carbon footprint. NCFI, maker of Agrithane™, is an Energy Star partner, member of the US Green Building Council, and winner of a prestigious award from the Environmental Protection Agency for protecting the ozone. See inside to learn why AgriThane™ is among the most sustainable of all insulations.

