

Wisconsin Fact Sheet 672

Building Envelope Improvement

Purpose

The purpose of this practice is to implement improvements to reduce or improve energy efficiency of on-farm energy use.

Agricultural Facilities

Insulation and Vapor Barriers



Agricultural facilities are often high moisture, dusty environments. The requirements for insulation and vapor barriers installed in agricultural facilities can differ from those of residential buildings due to temperature extremes and

the moisture and dust present in agricultural buildings.

Requirements for insulation materials and vapor retarders are provided in ANSI/ASABE S401.2.

Sealant

Professionally installed sealant can be effective in reducing seasonal heat loss and heat gain in agricultural buildings. Sealing gaps in exterior walls serves to reduce the need for heating and cooling equipment to operate, resulting in a decrease in energy consumption.

Greenhouses



Greenhouse Screens

Mechanically operated energy screens consist of a system of motors, controls, support cables and screening

materials. These systems can be operated in order to improve the heating and cooling efficiency of the greenhouse. In the winter or at night they can be used to reduce the amount of space inside of the building that needs to be heated and to reduce heat loss from the greenhouse. They can also be used to reduce solar heat gain by providing shade in the summer.



Wall Insulation

Cellulose or bubble type insulation can be installed in greenhouses in order to reduce seasonal heat loss or heat gain from uninsulated buildings.