

Scenario Worksheet

Practice and Scenario Description:

Information Type	Data
Region	Delta States
State	Louisiana
Discipline Group	Agricultural Engineering
Practice Code/Name	374 - Farmstead Energy Improvement
Scenario ID	19
Scenario Name	Greenhouse Screens
Scenario Description	The mechanical energy screen system consists of a drive motor, support cables, controls, and shade material, which may be woven, knitted, or non-woven strips of aluminum fiber, polyethylene, nylon or other synthetic material.
Before Practice Situation	Heating and cooling of an existing greenhouse is inefficient due to excessive heat loss and the fact that a greater volume of air is being heated than is necessary.
After Practice Situation	The greenhouse is fitted with a mechanically controlled energy screen installed truss-to-truss or gutter-to-gutter, with side screens as necessary, reducing heat loss in the greenhouse. Associated practices/activities: may include 122-AgEMP - HQ, and other activities within 374-Farmstead Energy Improvement. The resource concern is inefficient use of energy in the farm operation which increases dependence on non-renewable energy sources and can be addressed through improved energy efficiency. Any improvements are based on a Type 2 energy audit meeting the requirements of ASABE S612.
Scenario Feature Measure	Square Feet of Blanket
Scenario Unit	Square Foot
Scenario Typical Size	25000

Cost Summary:

Cost Category	Scenario Cost	Scenario Cost/Unit
Materials	\$50,000.00	\$2.00
Equipment/Installation	\$0.00	\$0.00
Labor	\$429.12	\$0.02
Mobilization	\$25.75	\$0.00
Acquisition of Technical Knowledge	\$0.00	\$0.00
Foregone Income	\$0.00	\$0.00
Total	\$50,454.87	\$2.02

Cost Details:

Cost Category	Component ID	Component Name	Component Description	Unit	Price (\$/unit)	Quantity	Cost
Materials	1148	Thermal blanket 10,001 - 50,000 square foot	Thermal blanket greenhouse screens: mechanical energy screen system consists of a drive motor, support cables, controls, and shade material, which may be woven, knitted, or non-woven. Size Range is 10,001 to 50,000 square feet. Materials only.	Square Foot	\$2.00	25000	\$50,000.00
Labor	230	Skilled Labor	Labor requiring a high level skill set: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	Hour	\$26.82	16	\$429.12
Mobilization	1141	Mobilization, Skilled labor	Mobilization of skilled labor: Includes carpenters, welders, electricians, conservation professionals involved with data collection, monitoring, and or record keeping, etc.	Hour	\$25.75	1	\$25.75