

# Livestock Shade Structure

Alabama Job Sheet No. AL717



## DEFINITION

A permanent or portable framed structure to provide shade for livestock that are adversely affected by heat from the sun or are excluded from natural shade.

## GENERAL INFORMATION

A livestock shade structure can be constructed permanently or as a portable unit. In order to minimize manure concentrations, portable structures are preferred. The structure is generally wood or steel pipe and supports an ultra-violet protected polypropylene fabric (shade cloth) specifically designed by the manufacturer to provide at least an 80 percent shade level.

Portable units should be built on skids to facilitate movement and should be sized for practical relocation. An individual portable unit should not be larger than 25 feet by 42 feet.

The amount of artificial shade is dependent upon the amount of natural shade available and the type of animal. An NRCS technician can help determine the amount of shaded area to be constructed.

Livestock shade structures should be located:

- on well-drained sites,
- no less than 200 ft. from any water source,
- at least 150 ft. from an up-gradient well,
- at least 300 ft. from a down-gradient well, and
- at least 50 ft. from any building or structure that would obstruct the circulation of air.

Proximity to livestock water and minerals should be strategically planned so as to create a desired livestock-grazing pattern.

Permanent structures may need heavy use area protection in the shaded area (see Alabama NRCS Job Sheet AL561, Heavy Use Area Protection).

The long axis of the shade structure should be generally oriented in the north-to-south direction to keep the shaded area as dry as possible. If animals are confined under the structure, an east-to-west orientation is more desirable.

## OPERATION AND MAINTENANCE

Livestock shade structures properly constructed can last for years; however, the fabric will eventually degrade due to environmental conditions and need to be replaced. Storing the fabric during the winter months can extend the useful life of the fabric. The fabric should always be kept tight so that it will not be damaged by wind.

Portable structures must be moved periodically to prevent destruction of vegetation.

## REFERENCES

Alabama NRCS Conservation Practice Standard  
Livestock Shade Structure - Code 717  
Alabama NRCS Job Sheet  
Heavy Use Area Protection - AL561

*The United States Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, and national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotope, etc.) should contact the USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write the USDA, Director, Office of Civil Rights, Room 326W, Whitten Building, 14<sup>th</sup> and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.*

## Livestock Shade Structure Worksheet

Land User: \_\_\_\_\_ County: \_\_\_\_\_ Date: \_\_\_\_\_

Farm No.: \_\_\_\_\_ Tract No.: \_\_\_\_\_ Assisted by: \_\_\_\_\_

**Size of Structure:** Length \_\_\_\_\_ ft. x Width \_\_\_\_\_ ft. (limited to 25 ft. x 42 ft.)

**Distance to:** any surface water \_\_\_\_\_ ft. (minimum of 200 ft.)

up gradient well \_\_\_\_\_ ft. (minimum of 150 ft.)

down gradient well \_\_\_\_\_ ft. (minimum of 300 ft.)

**Shade Cloth Material Type:** \_\_\_\_\_

Shade Level: \_\_\_\_\_ % (minimum 80%)

| Table 1- Recommended Shade Requirement. |   |
|---|---|
| Animal Type                             | Recommended Shade Requirement<br><sup>2</sup><br>(ft /hd) |
| 400 pound calves                        | 23  |
| 800 pound feeders                       | 32  |
| Beef cows                               | 40  |
| Dairy cows                              | 50  |
| Mature swine                            | 20  |
| Horses                                  | 60  |
| Small ruminant                          | 8   |