

## NATURAL RESOURCES CONSERVATION SERVICE - ILLINOIS

## CONSERVATION PRACTICE GUIDANCE

**561 – HEAVY USE AREA PROTECTION****Winter Feeding Station****I. PURPOSE**

In Illinois, the Winter Feeding Station (WFS) is typically used to feed animals in a pasture setting rather than in confinement. WFS can facilitate an extended grazing season and winter grazing (including stockpiling).

Identify the resource concern(s) being solved. In general, a Winter Feeding Station (WFS) may be used to address water quality degradation of surface and/or groundwater due to nutrients and pathogens from manure. Document that a resource concern exists before proposing a winter feeding station.

**II. SITE SELECTION AND PLANNING**

Locate the WFS away from waterbodies, drainage ways, and other locations where runoff is likely to carry nutrients and pathogens into nearby waterbodies.

Divert runoff water away from the area of the WFS. Position the WFS such that surface water will not accumulate in the area. This may mean that the building pad needs to be raised slightly in relation to the surrounding area to provide positive drainage away from the structure, or placed on slightly sloping ground.

Discuss grazing of crop aftermath and annuals with the producer, and if applicable, consider when siting the WFS. Alternatives for locating the WFS include:

- Central location in an individual pasture which will always be used for winter grazing operations, or
- Central location to multiple pastures that will be grazed, and/or crop fields that will have aftermath or annuals grazed, with a plan to rotate winter usage annually.

Avoid locating the WFS adjacent to or in the vicinity of confined livestock facilities. The WFS is not a confinement facility.

Provide an access road to the entry of the WFS to protect the soil in the vicinity from excessive rutting.

**III. FEEDING MANAGEMENT**

All feeding must be done inside the roofed portion of the WFS to adequately address the resource concerns associated with winter feeding. No feeding is to occur outside the WFS.

Feeding is expected to occur in the WFS only during winter like conditions. Avoid the appearance of creating a confinement situation by maintaining a balance between feeding in pastures during the winter time and utilizing the WFS. Recommend practices that extend the grazing season as a part of any grazing plan utilizing a WFS. These practices may include the planting of warm season grasses, stockpiling of forages, the use of annual crops for grazing, and grazing of crop residue (i.e. corn stubble).

Determine the method of feeding that will be used by the producer. This will affect the sizing of the facility. A central feed bunk is the most efficient, allowing more animals to feed in a given space as compared to feeding loose hay in feed rings. Producers should be encouraged to utilize central feed bunks and grind their feed rather than using feed rings.

Feeding loose hay typically generates a high amount of feed wastage. Storage needs for this wastage must be considered in addition to the manure generated in a WFS.

The number of rings placed in the WFS along with the animal numbers feeding will determine how often the feed rings need to be refilled.

No matter which feeding style is selected, the producer should plan to prevent livestock access to the waste storage area, using temporary barricades or other means. This will help prevent the animals from climbing onto the manure stack and risking injury by jumping from the stack wall.

#### **IV. SIZING THE FACILITY**

Size the WFS to handle the number of animals that is supported by the proposed grazing system, and the producer determined feeding method.

Limit the herd size using a single WFS to a maximum of 50 animals. This will minimize damage to the surrounding area, allowing for the vegetation to recover in the following growing season.

In Illinois, the standard design WFS structures were originally intended to feed the entire herd, allowing 2 feet of linear space per cow on either side of a central feed bunk. Storage for about half of the manure and other waste generated during a winter feeding season was included.

Currently, a range of WFS structure sizes is available, labeled 30 through 100 in increments of 10. These numbers are representative of the herd size only if the central feed bunk concept is used, and if the animals are encouraged to spend time away from the WFS, either by locating watering facilities some distance away, or by other means.

If feed rings are to be utilized instead of a central feed bunk, use the recommendation of the producer to determine the design capacity of the feeding facility: what percentage of the herd should be fed at once. Feed rings 8 or 10 feet in diameter are available, and typically feed 10-12 cows at a time. Allow 8 to 10 feet of access space around each feed ring (16-20 feet between rings), and ensure that all feed rings and access space will fit under the roof of the WFS. For example, if two 10-foot diameter feed rings are to be accommodated, the length of the feeding area should be at least 54 feet (standard size 50).

#### **V. GRAZING PLAN DEVELOPMENT**

To properly use the WFS, a grazing plan is required. The grazing plan will guide the placement and size of the WFS.

If the WFS is to be located centrally in one pasture, no fencing should be placed around the WFS. The size of the pasture should be adequate that the grass will recover and grow each year.

If the WFS is to be located central to more than one pasture or area, include fencing around the perimeter of the lime/gravel heavy use area of the WFS, with gates and walkways to allow the producer to direct the animals to each pasture or combination of pastures in a yearly rotation. Include provisions in the grazing plan that will provide a rest to the sacrifice area after winter usage, and time to revegetate.

Locate watering facilities and other features such as mineral feeders at some distance from the WFS, to minimize the buildup of manure at the feeding site.

#### **VI. OPERATION AND MAINTENANCE**

An Operation and Maintenance (O&M) document for the WFS is available in the Field Office Technical Guide. Customize this document for site specific use.

The O&M document includes general manure collection and application guidelines to help ensure that the manure is properly land applied. The producer must agree to manage the manure generated at the WFS according to the site specific O&M plan.

When planning the WFS, ensure that the producer understands the need to reseed the land around the structure during the following growing season, if the vegetation does not regrow. The vegetation must be maintained in a manner that covers and protects the land from erosion.

Ensure that the producer understands that the WFS is not to be used for purposes other than winter feeding. The WFS is not a storage area for feed or equipment.

#### **REFERENCES**

USDA – Natural Resources Conservation Service, Illinois. November, 2015. Conservation Practice Standard 561 – Heavy Use Area Protection.

USDA – Natural Resources Conservation Service, Illinois. September, 2015. Standard drawings IL-ENG-190 and IL-ENG-220.

University of Missouri, Columbia, MO. “Reducing Losses When Feeding Hay to Beef Cattle”. MU Guide G4570.