



**THE OHIO STATE UNIVERSITY**

COLLEGE OF FOOD, AGRICULTURAL,  
AND ENVIRONMENTAL SCIENCES

## **Hardin County Extension News Release**

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### **Late Season Forage Harvest Management**

*Hardin County* – The best time to take a last harvest of alfalfa and other legumes is sometime in early September in Ohio, for the least risk to the long-term health of the stand. These forages need a fall period of rest to replenish carbohydrate and protein reserves in the taproots that are used for winter survival and regrowth next spring.

Many forage producers around the state have been cutting this past week and are continuing into this week. It will be ideal if this is indeed the last harvest of the season. But some growers might try to squeeze out another late cutting, and others have fields that are not quite ready for harvest right now. Like most farming decisions, there are trade-offs and risk factors to consider when making a fall harvest of forage legumes after the first week of September. This article reviews best management practices and risk factors affecting fall cutting management.

The decision of when to take the last harvest with the least risk to the stand can be boiled down to two choices: cut early enough in the fall (generally early September) to permit alfalfa to regrow and replenish carbohydrate root reserves, or cut late enough so that alfalfa does not regrow and use up root reserves prior to winter dormancy. Cutting in between those times (mid-September to mid-October) means more risk to the stand. Factors such as previous cutting management, age of stand, soil fertility, variety, and soil moisture affect the level of that risk.

For those who are risk adverse, following the last cutting date recommendations offers the highest probability of promoting good winter survival and vigorous growth next spring. The recommendation in the Ohio Agronomy Guide is to complete the last regular harvest of alfalfa by September 7 in northern Ohio, September 12 in central, and by September 15 in southern Ohio. The corollary is to delay final harvest until a killing frost (25 degrees F for several hours) has occurred.

Previous harvest management should be a part of the risk assessment for fall cutting. The cutting frequency during the growing season affects the energy status of the plant going into the fall. Frequent cutting (30-day intervals or less) results in the plant never reaching full energy reserve status during the growing season. A short

regrowth period just prior to the fall harvest can be especially risky, if that fall harvest occurs between mid-September and early October, because the regrowth uses root reserves and there won't be enough growing weather remaining for the plants to restore a high level of root reserves before cold weather shuts down the plants. This lower root reserve status may limit winter survival and spring regrowth, depending on the winter and early spring growing conditions.

Variety selection may also affect the fall cutting risk assessment. Today's top varieties have genetics selected to better withstand intensive cutting schedules. Alfalfa varieties with high disease resistance and good levels of winter hardiness will be more tolerant of a fall cutting. Adequate fertility, especially soil potassium, and a soil pH near 6.8 will improve plant health and increase tolerance to fall cutting. Stands under 3 years of age are generally more tolerant of fall cuttings than older stands where root and crown diseases are setting in. However, you have more productive stand life to lose if younger stands are harmed by fall cutting.

Soil drainage and soil moisture affect the risk of fall cutting. High soil moisture slows down the cold hardening process, increasing the risk of winter injury. Alfalfa on well-drained soils tolerates late fall cuttings better than on moderately or poorly drained soils. But a word of caution - removing the top growth of alfalfa plants going into the winter on heavy soils and poorly drained soils increases the risk of spring frost heaving. Heaving is a significant risk on many Ohio soils with higher clay content. This would be a concern when cutting very late.

Finally, consider the economics of a fall harvest. Often the height of the alfalfa is deceptive as an indicator of tonnage. The resulting windrow after cutting is often sparse. Thus, the cost of mechanical harvesting is high on a per ton basis. Fall cutting risk can be reduced but not eliminated. Nature bats last and alfalfa stand health and survival will suffer more from fall cutting when there are early freezes, open and very cold winters, early springs with ice, and/or extreme rainfall and temperature variations. If at all possible, producers are urged to observe the fall rest period for forage legumes. And if you do harvest during the fall rest period, leave some strips of uncut forage to compare to. You might learn something useful!

*Article written by Mark Sulc, OSU Extension-Forages, and edited by Mark Badertscher, OSU Extension-Hardin County.*