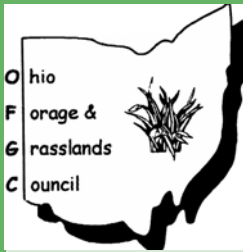


# Ohio Forage and Grassland Council

SUMMER 2013



## About OFGC:

We represent a collective voice for issues affecting forage-animal agriculture.

We develop present and future leaders in the forage industry.

We encourage research, education, and service efforts to improve forage production, utilization, and marketing.

OFGC strives to provide a forum or means for the exchange of ideas, problems/opportunities, and solutions in forage-animal agriculture.

## Our Mission:

The Ohio Forage and Grasslands Council, Inc. exists to enhance the profitability of Ohio farmers through the use of forage and grasslands resources, and to facilitate the opportunity for collective interaction between producers and other forage workers, both public and private.

## Looking Towards the Future...by Perry Clutts

The last 2 years as Ohio Forage and Grassland Council (OFGC) president has been a great learning and rewarding experience. When I started on the OFGC board, we had a wonderful executive secretary in Leah Miller, who eventually needed to leave our organization in order to dedicate more time to her work with the Small Farm Institute. Quickly, we were able to hire Sarah Duval, but because of family commitments, we found ourselves without an executive secretary after only one year of Sarah's service. As a board, we decided to pull together, dedicate more personal time to the running of the organization, and take our time looking for better alternatives and a new executive secretary.

Many of you know that as an OFGC member, you are also an American Forage and Grassland Council (AFGC) member. OFGC is one of the 22 affiliate councils in

the United States and Canada. A portion of your dues goes to AFGC to help administer our parent organization. Under the direction of a national AFGC board and the AFGC executive director, Tina Bowling, there are several services they can offer OFGC to help reduce our expenses and provide better service to our membership.

At the last OFGC board meeting, the directors voted to approve some changes in the management of OFGC. We are now partnering more with AFGC who will handle our membership roster, website updates and publish the newsletter. Since AFGC manages several other affiliate councils, these tasks can be done at a greatly reduced rate and much of the work will be at no cost to OFGC thereby greatly reducing our overhead. In addition to partnering with AFGC, the

board has also hired local administrative help to make sure information travels between the two organizations in a timely manner. Traci Aquara will be making this happen through the transition period and beyond. Some of you may know her from her work with the Heart of Ohio RC&D, as their secretary and IFO, as a director on the IFO board. She has an agricultural background which will help our organization greatly. It's great to have Traci on board helping keep OFGC organized and moving forward.

These changes will be rolling out over the next several months, so look for more timely newsletters, membership announcements and more frequent updates to the website.

Perry Clutts – Past President  
Ohio Forage and Grassland  
Council

## Sorghum-Sudan —A Versatile, High-yielding Summer Annual

Submitted by: Kevin Fowler, Fowler Seed Marketing

Brown Mid-Rib (BMR) sorghum-sudan is a versatile, high-yielding summer annual. When soils are at least 60-65 degrees, it establishes easily in tilled ground or no-tilled into suppressed sod. Little, if any, weed control is necessary, if planted at adequate rates. Normal soil moisture is needed to reach twelve inches in height, significantly less moisture than corn is required to produce normal tonnage. In Ohio, economic returns occur when planted between late-May through mid-July. Two to four tons of high energy forage can be grazed or mechanically harvested every 30-45 days until frost, depending on fertility and moisture. Harvest at three to four feet for maximum digestibility; taller, but before heading, for maximum yields. BMR SxS is often stored in wrapped round bales at about 50% moisture. Dry rounds can be made in hot, dry weather and are preferred for sheep. Potential nitrate and prussic acid problems can be prevented by avoiding high rates (75#+) of nitrogen-only fertilizer at planting and by harvesting before frost. We recommend applying manure or smaller amounts of a more balanced fertilizer. Frosted sorghum-sudan can generally be safely fed after plants are completely dead or ensiled for several weeks according University researchers. If in question, test the forage and dilute it with other forages. Most commercially available hybrids yield well in ideal conditions, but vary in palatability and performance in cool, wet weather.

Fowler Seed Marketing (marketers of Cow Candy II BMR sorghum-sudan)

## President's Article...By Eric Grim

### Ohio Forage and Grasslands Council is off and running in 2013.

As past President Perry Clutts stated in his letter, the Council is going to change several things.

Our goal overall is keeping you the member, informed of OFGC events around the state. We will be partnering with other organizations to support informative forage based farm tours. More emphasis will be placed on OFGC/ OSU Extension grazing schools.

So as your new president here are a few of my goals for the organization.

- Better serve our current member by providing more research based information on forages and creating easier access to the information (web site, newsletter).
- Grow the membership.
- Gain some corporate sponsors for the organization, and corporate sponsored events.
- Partner with other farm organizations to be more visible in the agricultural world.

Ohio Forages and Grasslands Council is a very unique organization where farmers, extension personnel, and industry (seed, fertilizer research) are together on one board. That board should provide the latest information for you the farmer/ member to benefit your farm. That is my goal and that is the goal of OFGC board.

Best wishes,

Eric Grim  
OFGC President

## CALENDAR OF EVENTS

### The 2013 Ohio Sustainable Farm Tour and Workshop Series

Information on various events being offered for 2013 can be found at this site, <http://www.oeffa.org/pdfs/farmtour2013.pdf>.

### August 21, 2013—Western Ohio Forage Day at OARDC Western Agriculture Research Station 8:30am to 4:00pm

Research Demonstrations/Wagon Tours:

Grass interseeded into alfalfa—Bob Hendershot; Leafhopper resistant alfalfa trials—Mark Sulc; Warm season annuals after wheat-conventional, no-till and slurry seeded—Bob Hendershot and Amanda Douridas; Nutritional aspects of warm season annuals and corn silage—Bill Weiss; Alfalfa management inputs for high yield—Mark Sulc; Red and white clover variety trials—Mark Sulc; Native grasses for forage and biofuel—Bob Hendershot

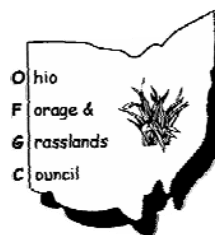
Lunch provided.

Afternoon sessions:

Forage preservation—Bill Weiss; Grass variety trials—Chad Hale

### AFGC 2014 Annual Conference

January 12-14, 2014 in Memphis, TN. More information online at [www.afgc.org](http://www.afgc.org).



## Grazing Management for Fall-Grown Oat Forages

Submitted by: Wayne Coblentz, Nancy Esser, Geoff Brink, Patrick Hoffman, and Michael Bertram

### Introduction

For the dairy or beef industry, options for producing a late-summer emergency forage crop are limited, mostly because the growing season is relatively short. Research has shown that oat, seeded in late-summer, can provide an excellent source of forage before winter and can be used to extend the fall grazing season, especially throughout October and well into November, when the growth of perennial cool-season grasses slows.

### How is oat different than wheat or rye?

Winter-wheat and cereal-rye cultivars planted in the late-summer will remain vegetative (do not joint) until the following spring. This does not apply to true spring-wheat cultivars. Unlike winter wheat and cereal rye, oat cultivars will joint, elongate, and produce a seedhead during the fall. This difference in physiology enables oat to enjoy yield advantages over winter wheat or rye throughout the fall. For a fall-growth application, triticale develops slowly, does not yield competitively with oat, and is not recommended. Normally, fall-grown oat will produce more fall forage than wheat by about a 2:1 ratio, regardless of weather conditions or harvest date. While the additional fall forage produced by oat is desirable, it must be emphasized that all oat plants will winterkill, and all utilization by grazing livestock must be completed by winter.

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## ...Grazing Management for Fall-Grown Oat Forages

There should be no expectation of spring forage production without planting a new crop of oat or other desired forage; however, the near certainty of winterkill may eliminate some herbicide requirements the following spring before a new crop can be established. Alternatively, producers could consider mixtures of cereal grains, such as oat and wheat, to avoid re-establishment of pastures in the spring. This approach may limit fall forage yield, but would permit grazing of the surviving high-quality wheat the following spring.

### How do I graze fall-grown oat?

Fall-grown oat should be considered stockpiled forage for deferred (later) grazing. Rotational grazing concepts are not applicable for two reasons. As stated previously, oat will eventually winterkill in northern climates. Secondly, fall-grown oat has very little regrowth potential. For these reasons, there is no need to worry about over-grazing, rest periods, maintaining plant growth reserves, or establishing rotational grazing schedules. The most complete utilization of fall-grown oat by grazing livestock will be accomplished by a one-time removal of standing forage, and by limiting the available forage to what is required to support livestock for a day or two at a time. This can be accomplished easily with a single 'lead' wire that is advanced daily, or on some regular schedule. This allows livestock minimal opportunity to urinate and/or defecate on standing forage, or otherwise waste available forage via unrestricted foot traffic or by lying down (resting). Allowing livestock access to more forage will reduce labor, but this also will reduce utilization and increase waste. We also have found that attaching plastic streamers or using a wider electrified ribbon greatly improved recognition of the lead wire by the grazing cattle.

Canopy height also will influence utilization of oat pasture. Table 1 illustrates this concept from two years of grazing data at the Marshfield (Wisconsin) Agricultural Research Station. During 2011, growing conditions were favorable, and plants reached more advanced growth stages and a maximum canopy height of about 39 inches. In contrast, climatic conditions during 2012 were much less favorable for growth due to extended drought, and oat plants were less mature, and considerably shorter in height, reaching a maximum of only 19 inches. Throughout each fall, pasture was allocated to (~1100-lb) grazing dairy heifers at a rate of 20 lbs DM/heifer during a single (~ 6-hour) grazing event lasting from about 8:30 am to 2:30 pm daily. Heifers were returned to the barn for the rest of the day where they were supplemented with a forage-based total mixed ration. Apparent utilization of standing oat forage using these procedures varied between 42.4 and 61.9% in 2011, but was much improved (77.8 to 90.4%) during 2012 when plants were less mature and only about half as tall. During the grazing trial, the daily allocation of standing forage was set by the terms of the experiment, and not altered; however, livestock producers would have the option of adjusting the daily allocation of forage to partially regulate the percentage of forage refused. Dairy heifers in this trial also preferentially grazed leaf tissue, which has better nutritive value compared to stem; therefore, any decision to reduce the daily forage allocation in an effort to improve utilization of pasture (especially less-desirable stems) must be weighed against the potential for depressing animal performance.

### When should fall-grown oat be planted, and when can grazing begin?

Fall oat should be seeded in central Wisconsin during early August. Using this timeline, grazing can be initiated during the last week of September during most years, which should coincide approximately with elongation of oat stems (post jointing). Fall forage production will likely be <50% of peak fall yield by that date, although it will continue to increase throughout October.

If grazing is initiated too soon, livestock may consume available pasture too rapidly, without having significant forage regrowth. In contrast, delaying the onset of grazing too long may result in forage losses as a result of early snowfall events or other inclement weather. Fall-grown oat will tolerate numerous frosts, particularly if plants are at the stem-elongation or boot stages of growth, and recent studies in Wisconsin suggest that grazing can continue until late-November if it is not prohibited by extensive snow cover. It also should be noted that plants mature very slowly (if at all) after mid-October, which is distinctly different than the rapid maturity changes that occur following a conventional spring seeding.

Another unique management consideration is related to the low lignin concentrations commonly observed within fall-grown oat forages. Lignin concentrations are unusually low within fall-grown oat because growing conditions are cool (or cold), and normal maturation is disrupted by the decreasing day length. Structurally, lignin serves as the portion of the cell wall that gives plants rigidity, and allows them to stand erect. With reduced lignin concentrations, oat plants are prone to lodge during snowfall events; while this will not prevent grazing, it may reduce forage utilization, and obviously would eliminate the possibility of harvesting excess forage as silage. Lignin also is completely indigestible and serves as a major impediment to fiber digestion in ruminants; therefore, the risks associated with potential lodging during snowfall events are offset somewhat by improved fiber digestibility and greater energy density within the forage.

### Summary

Fall forage production of oat generally will out-yield winter wheat or cereal rye by about a 2:1 ratio, regardless of weather conditions or harvest date. This advantage occurs because oat plants will joint, elongate, and produce a seedhead before winter, while the other species always remain vegetative until spring. However, oat also will winterkill in northern climates, and has little potential for fall forage regrowth. As such, fall-grown oat should be considered stockpiled forage for deferred (later) grazing. Based on these characteristics, the best utilization of this forage will be accomplished by efficient, one-time removal of standing forage. A single 'lead' wire can be advanced daily to prevent trampling and waste, and to allocate forage daily based on producer management goals and requirements. In recent experiments in Wisconsin, pregnant dairy replacement heifers without previous grazing experience adapted quickly to this type of grazing management. Producers will need to evaluate the nutrient requirements of their livestock classes against the quality of fall-grown oat coupled with other harvested forages and/or supplements to meet their desired animal performance goals.

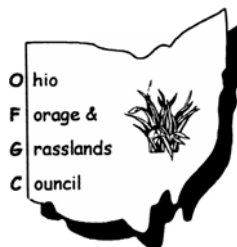
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Table 1 (to right). Estimates of forage utilization by dairy heifers allocated 20 lbs of dry matter as fall-oat forage for a single grazing event lasting approximately 6 hours (8:30 am to 2:30 pm) daily. Heifers were returned to the barn after grazing and received a mixed ration in addition to the oat pasture.

Figure 1 (below). Dairy heifers grazing fall-grown oats in Marshfield, Wisconsin.



Date	----- 2011 -----			----- 2012 -----		
	Canopy Height	Initial Forage Mass	Apparent Utilization	Canopy Height	Initial Forage Mass	Apparent Utilization
	inches	lbs DM/acre	%	inches	lbs DM/acre	%
Sept 24-30	24	2427	...	...	...	...
Oct 1-7	28	4513	48.2	...	...	...
Oct 8-14	35	4767	53.3	13	1924	...
Oct 15-	35	6408	57.2	14	1565	79.1
Oct 22-	36	7099	61.9	17	1994	89.4
Oct 29-Nov 4	39	7964	55.6	19	2158	84.9
Nov 5-	37	7333	53.7	19	2351	90.4
Nov 12-	32	7068	42.4	17	2127	77.8



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