

Forage

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the best combination of quality and quantity, this would be the optimal time to harvest."

However, above-normal precipitation during the growing season leads to harvest delays, which means that many forages are overmature by the time they are harvested.

Temperature also is a major factor in how plants mature. Warm temperatures lower forage quality, compared with forages grown under cool temperatures, even when forages are harvested at the same maturity stage. The combination of relatively cooler temperatures and continued rain well into the growing season has kept many forages in a vegetative state, which could mean that forage quality may not be reduced as much as expected.

How Rain During Harvest Impacts Forage Quality

Rainfall that occurs between cutting and baling can have a variety of impacts on forage quality.

"Yield and digestibility losses between 6 percent and 40 percent have been reported, depending on factors such as species, timing and amount of rain, stage of maturity at harvest and drying conditions," Meehan notes. "A study of hay quality conducted by NDSU Extension in 2015 reported lower total digestible nutrient content of samples that had been rained on."

Leaching of plant sugars (carbohydrates), vitamins and minerals out of plant tissues is a major concern. Crude protein content may be increased in rained-on hay because it composes a larger portion of forage dry matter as sugars are lost.

If hay is baled while it is too wet, much of the crude protein may be lost to heat damage, Block cautions. High moisture content of forages can cause continued respiration in harvested forage, which further contributes to carbohydrate losses. Leaf shatter and loss can occur, particularly with alfalfa.

In addition, the potential for increased microbial activity can reduce forage quality and increase the risk of mold and mycotoxins.

Recommended dry matter percentages for baled hay are approximately 18 percent or less for large round bales, 16 percent or less for large square bales and 20 percent or less for small square bales, Hoppe says.

Spontaneous combustion

may occur when internal temperatures exceed 150 F. Most of the time, this will occur within a few weeks of baling, but it also can occur with heavy rainfall after hay is in the stack.

Quality losses due to heating may occur as well. Some proteins may bind with fiber, which makes them unavailable for digestion. The presence of mold and mycotoxins also can be detrimental to livestock.

"Given the large list of variables that can impact forage quality in a wet year, forage analysis is extremely critical," Hoppe says. "If you've never tested hay before, this is the year to do it. But remember, forage analysis is only as good as the samples that are submitted."

Detailed instructions for forage sampling can be found at <https://www.ag.ndsu.edu/publications/livestock/sampling-feed-for-analysis>.

County offices of NDSU Extension may have a hay probe available for producers to borrow, and can provide information on where and how to submit samples. The National Forage Testing Association maintains a list of certified laboratory facilities on its website at <https://www.foragetesting.org>.

At a minimum, analysis should include an estimate of total digestible nutrients and crude protein (CP), which are used as the basis to determine forage quality and develop rations for livestock at various stages of production. However, this year, evaluating other components of the forage might be worthwhile as well.

The content of NDF will be an important factor to consider. Some labs also may offer analysis for acid detergent fiber nitrogen or acid detergent fiber protein, which are measures of heat-damaged protein. If this result is greater than 10 percent, the lab will adjust CP levels to determine the amount of available protein.

Laboratory analysis of forages typically will cost between \$20 and \$40.

"These tests are inexpensive when considering the importance of hay quality to your bottom line," Block says. "A forage test early in the season will help producers determine the quality of the forage base and whether supplementation will be necessary to meet livestock requirements. The bottom line is it is best to test rather than try to guess how the unusual growing conditions this year may have affected hay crops."

— NDSU Agriculture Communication

Malting barley requires care when drying, in storage

Malting barley needs special care when drying and storing it, according to North Dakota State University Extension grain drying expert Ken Hellevang.

"Malting barley germination will be lost if the allowable storage time is exceeded," he says. "For example, the germination will be lost in about 30 days if 17 percent moisture barley is stored at 70 degrees."

The allowable storage time (AST) is cumulative, so if the barley is stored for 15 days at 17 percent moisture and then dried to 13 percent moisture, the remaining allowable storage time is only 135 days, rather than the 270 days of storage time if the barley had dried to 13 percent before harvest. Germination will be lost before mold growth is visible.

Malting barley germination also will be lost if adequate airflow is not provided to barley being dried by natural-air or low-temperature drying so that it is dried within the allowable storage time, according to Hellevang, Extension agricultural engineer.

The minimum recommended airflow rates and drying times to dry the barley within the allowable storage time are 1.25 cubic feet per minute per bushel (cfm/bu) to dry 18 percent moisture barley in about 16

days, just barely shorter than the AST of 18 days; 1 cfm/bu to dry 17 percent moisture barley in about 19 days, just barely shorter than the AST of 25 days; and 0.75 cfm/bu to dry up to 16 percent moisture barley in about 23 days, less than the AST of about 50 days, based on typical August weather conditions.

"Drying occurs in a zone that moves from the bottom of the bin to the top if the air is pushed up through the barley," Hellevang says. "Grain at the top will stay near the initial moisture content until the drying zone reaches the top of the grain, so adequate airflow to dry the barley within its allowable storage time is critical."

Use a fan selection program or table, such as one available from NDSU Extension, to determine whether you have adequate airflow. For more information, go to NDSU's grain drying, handling and storage website (<https://www.ag.ndsu.edu/graindrying>). You also can have the fan supplier verify the airflow rate.

The time required to complete drying and the allowable storage time will be longer at cooler temperatures because the cooler air holds less moisture. Drying grain at 60 degrees will take about 30 percent longer than it does at 70 degrees.

Adding supplemental heat to a natural-air drying system will reduce the moisture content of the grain but only reduces the drying time slightly. Warming the air by 5 degrees will reduce the relative humidity by about 10 percent and the barley moisture content by about 1.5 percentage points. The air normally will be warmed 3 to 5 degrees by the fan operating at a static pressure of about 5 to 6 inches associated with drying barley, so typically, little additional heat is needed.

Adding more heat than is required results in the barley being dried to a moisture content lower than desired. The equilibrium moisture content for barley is about 12 percent at 70 F and 60 percent relative humidity, which are average conditions for August. North Dakota's September air conditions of 58 F and 70 percent relative humidity will be 63 F and 60% relative humidity if the fan heats the air 5 degrees. This air will dry barley to about 12 percent moisture content.

Hellevang also recommends limiting the plenum temperature in a high-temperature dryer to a maximum of 110 F when drying malting barley to maintain germination.

— NDSU Agriculture Communication

Planting unlabeled cover crop seed could be costly

Planting cover crops is increasing in popularity each year, and this is not surprising considering the benefits. However, those potential benefits will be quickly negated by the use of untested or unlabeled seed says Jason Goltz, North Dakota State Seed Department regulatory programs manager.

North Dakota seed law requires that all agricultural seed offered for sale, or sold for planting purposes, must be labeled. Proper labeling requires seed testing and without proof of testing, there is the potential for planting seed that will not germinate or planting seed contaminated with weed seed that may take years to control or eradicate.

"If you are buying seed that has no available label or the label is promised in the mail, it is not a legal sale," says Goltz.

Another concern when purchasing seed for cover crop use is to ensure the seed meets all intellectual property rights protections, warns the ND State Seed Department.

For example, most rye in North Dakota can be sold "variety not stated". The exception, is ND Dylan. A North Dakota State University developed variety, ND Dylan is protected under the Plant Variety Protection Act and Title V of the Federal Seed Act. This means ND Dylan must be sold by variety name as a class of certified seed. Illegal sales of a protected variety can result in fines up to \$10,000 per occurrence.

Goltz concludes, "Taking full advantage of the benefits of cover crops depends on the quality of the seed. Be sure to purchase legal seed that has been properly tested and labeled."

Visit <https://www.nd.gov/seed> for more information on North Dakota's seed laws.

— NDSU Agriculture Communication

FeedList connects livestock feed buyers, sellers

Many livestock producers in North Dakota are short on forage following a long, cold winter and late spring that depleted forage supplies says Miranda Meehan,

North Dakota State University Extension livestock environmental stewardship specialist. Supplies in some areas have been further exasperated due to low forage production, resulting from cool temperature and drought.

In other regions, livestock producers have surplus forages, as a result of ample, timely rains.

"In addition, many farmers planted cover crops on prevented plant acres to increase water use and manage weeds," says Meehan. "There is the opportunity to market these annual forages to livestock producers, due to the U.S. Department of Agriculture's Risk Management Agency revision to the prevented planting insurance provisions, allowing producers to hay or graze a cover crop on prevented plant acres beginning Sept. 1."

Farmers and ranchers who have feedstuff such as hay, cover crops or corn for sale can list it on NDSU's FeedList website, which is designed to connect feed sellers and buyers. Producers also may list pasture they have for rent.

The FeedList, at <https://www.ag.ndsu.edu/feedlist>, shows what each seller has for sale, how the feed is stored (large round bales, small bales, etc.) and the seller's contact information. Prospective buyers can select what they want to buy and contact the sellers. Using the FeedList is free of charge.

Anyone who wants to buy or receive, or has feed to sell or donate can complete an online form at the site. Those who need entry help can contact an NDSU Extension county office. Visit <https://www.ag.ndsu.edu/extension/directory> to find a local office.

See FeedList, Page 10

PUBLIC NOTICES

ABBREVIATED NOTICE OF INTENT TO AMEND ADMINISTRATIVE RULES

relating to Changing Continuing Education Requirements and Prescription Drug Monitoring Program

North Dakota Board of Optometry

Will hold a public hearing to address proposed changes to the N.D. Admin. Code

Sakakwea Room North Dakota State Capitol Building 600 E. Boulevard Ave. Bismarck, ND Mon., Sept. 23, 2019 1:00 p.m.

A copy of the proposed rules may be obtained by writing the ND Board of Optometry, 341 1st Street East, Dickinson, ND 58601, or at www.ndoptometry.com. Also, written comments may be submitted to 341 1st Street East, Dickinson, ND 58601, and oral comments may be provided at (701) 690-7937, until October 4, 2019. If you plan to attend the public hearing and will need special facilities or assistance relating to a disability, please contact the ND Board of Optometry at the above address 10 days before the public hearing. Dated this 14th day of Aug., 2019. Alan J. King, O.D., Executive Director

(August 24, 2019)

NOTICE

August 12, 2019 Balta City Council Meeting

The 7:30 pm meeting was called to order by Mayor Jundi. Present were councilmen Hallof and Rennock. Rennock made a motion to approve the minutes as read. Hallof seconded the motion. Hallof made a motion to approve the treasurer's report as read. Rennock seconded the motion. Old Business: No estimate yet on fixing the pumphouse. Looking for a new city design. New Business: Rennock made a motion to approve the year end city audit. Hallof seconded the motion. The board approved paying the bills; Northern Plains Electric \$346.93, Tribune

\$22.94, League of Cities dues \$215.00, Farmers Union Insurance \$613.00, Mack Accounting \$250.00, Circle Sanitation \$530.00, and James Rennock \$320.00. The sewer line will be flushed out sometime this fall. No other business before the board Rennock made a motion to adjourn the meeting. Hallof seconded the motion.

Elaine Schaan, City Auditor (August 24, 2019)

Notice of Public Hearing

In accordance with Ordinance No. 304, Chapter 19.42, of the Municipal Code, City of Rugby, ND, the City Council will hold a Public Hearing concerning the application of Rugby Spray Foam LLC/Brad Wangler & Derick Welk, and the change of zoning designation of a property located at 314 3rd St NW located in the following lots or tracts:

Rugby Outlots - Outlot 176 SW 1/4 SE 1/4 75 x 157.66 - 31-157-72 to the City of Rugby, Pierce County, North Dakota

The zoning change requested is from the present R-1 (Single Family) to C-2 (General Commercial) zoning designation. The zoning change is needed for the following reasons or circumstances: To be able to remove existing structure and construct storage building. The application request is on file and available for public inspection and copying at the office of the City Auditor, City Hall Building, 223 South Main Avenue, during normal business hours. The public is invited to attend in person or prepare written comments to attention of the City Auditor's Office, City Hall Building, 223 South Main Avenue, Rugby, ND, 58368. Said hearing to be held in the City Hall Building Chamber Meeting Room, Rugby, ND, on Monday August 26, 2019 at 7:30pm. Dated: August 13, 2019

Jennifer Stewart City Auditor (August 17-24, 2019)

NOTICE OF PUBLIC HEARING

In accordance with the zoning regulations of Pierce County, North Dakota, the Pierce County Commission will hold a public hearing on Tuesday, September 3, 2019 at 9:30 A.M. in the commissioner's room of the Pierce County Courthouse, 240 2nd St SE, Rugby, ND 58368 concerning a conditional use permit requested by B & J Excavating Inc., for an aggregate mining operation located in NW1/4SE1/4 section 16 Township 158 North, Range 72 West. Dated this 16th day of August, 2019

Karin Fursather County Auditor-Treasurer (August 24-31, 2019)

NOTICE

Pierce County is updating its Comprehensive Plan. The public is invited to participate in the planning process. The next meeting will be held at the following date and time: 7 p.m., Wednesday, September 4, 2019, at the Rugby Fire Hall located 1410 Highway 3 South in Rugby. For more information, please contact Pierce County Emergency Manager Kelsey Siegler at 701-776-5868, Ext. 3, or Daniel Schwartz at Nexus Planning & Consulting, LLC at 7 0 1 - 9 8 9 - 7 9 7 0 ; dcschwartz@nexusplanco.com. (August 24-31, 2019)

NOTICE

The Affordable Housing Developers (hereinafter, "The Owner") will receive sealed bids for the construction of the Rugby Courtyard Apartments Upgrades located in Rugby, North Dakota. 1. All bids will be publicly opened and read aloud at the 8-plex Common Room, 307 2nd Ave NE, Rugby, North Dakota at 2:00 p.m. C.S.T. on September 19, 2019. All bids received after the scheduled opening time will be returned to the bidder unopened. Bidders shall submit a Single Prime Bid for Construction. A pre-bid conference will be held on site at 2:00 p.m. C.S.T. on September 10, 2019. 2. All contractors desiring to submit a bid may view and order bid documents by going to the Franz Reprographics web site at www.franzrepro.com, and selecting the Franz Public Plan Room. Please login with your email address and password, or Register if this is your first time in the Plan Room. Select the project from the list of public projects. Once you have selected the project, please review the Bid Details for information on ordering documents. Contract documents can be downloaded free of charge as pdf's. Hard copy set of documents can be ordered at Franz Reprographics standard printing rates. Contractor's desiring to be on the bidder's list should contact Franz Reprographics at 763-503-3401 or can be added after pdf is downloaded from Franz Public Plan Room after a free account & password are set up on the planroom. Drawings and Specifications will also be on file at Builders Exchanges in Dickinson, Bismarck, Mandan, Williston, Fargo, and Minot, North Dakota; Billings, Bozeman, Great Falls, Montana; Minneapolis, Minnesota; Rapid City, South Dakota; and McGraw Hill Dodge, Minneapolis, Minnesota; and Reed Construction Data. 3. Each bid shall be submitted in duplicate and enclosed in a sealed opaque envelope upon which there is disclosed the necessary information as required by the Instructions to Bidders. Each bid shall be accompanied by a separate sealed opaque envelope containing a bidder's bond made payable to Affordable Housing Developers and executed by the

bidder as principal and by a surety company authorized to do business in North Dakota, in a sum equal to five percent (5%) of the bidder's highest total bid combination, including all add alternates to the bid items, conditioned that if bidder's proposal be accepted and the contract awarded to him, her, within ten (10) days after notice of such award, will effect and execute a contract in accordance with the terms of his bid and a contractor's bond as required by law and the regulations and determinations of the Owner. AIA Document A310, Bid Bond, should be used to execute the bid guarantee. Bidders attention shall be called to all relevant sections of the North Dakota State Century Code regulating construction. In compliance with Section 43-07-12 of the North Dakota Century Code, each contractor submitting a bid must have a copy of his North Dakota Contractor's License or certificate of renewal thereof issued by the Secretary of State enclosed in the bid bond envelope and must be licensed for the highest amount of their bid including add alternates as provided by Section 43-07-07 and such license must have been in effect at least ten (10) days prior to the date of the bid opening. This project is covered under HUD (Housing & Urban Development) Section 3 rules and regulations. Civil Rights and Labor Standards Provisions and Equal Opportunity Regulations apply to this project. The successful bidder will be required to register with SAM.gov and meet all the requirements to do so. Davis-Bacon Wage Rates apply to this project. Wage rates will be verified 10 days prior to bidding and noted by upcoming addenda. No bid will be read or considered which does not fully comply with the provisions herein as to bonds and licenses, and any deficient bid submitted will be resealed and returned to the bidder immediately. The Owner reserves the right to hold all legitimate bids for a period of forty-five (45) days after the date fixed for the opening thereof. The Owner further reserves the right to reject any and all bids and to waive irregularities, and shall incur no legal liability for the payment of any monies until contract is awarded and approved by the proper authorities. The successful bidder will be required to furnish a Performance-Payment Bond. Dated this 24th day of August, 2019.

Andrea Diede Executive Director AHD (August 24-31; September 7, 2019)

NOTICE TO COMPETITORS OF HEARING ON APPLICATION FOR PROPERTY TAX INCENTIVES

Notice is hereby given that the City Council of the City of Rugby, North

Dakota, will meet at 7:30pm on Thursday, September 5, 2019 at Rugby City Hall, 223 South Main Avenue, Rugby, on the second floor in the Council Chambers to consider the application of Rugby Manufacturing Company, 515 1st St NE, Rugby, North Dakota, 58368 for property tax relief on the project which the applicant will use in the operation of manufacturing truck bodies at 515 1st St NE, Rugby, North Dakota, 58368 - Lots 1 and 2 Block A and Lot 3 Block 3 Industrial Park Addition, to the City of Rugby. Any competitor of that applicant may appear and be heard by the City Council at the time and place designated herein. A competitor may provide written comments to the governing body before the scheduled hearing. This notice is given by the above-named applicant pursuant to the provisions of North Dakota Century Code 40-57-1-03. (August 17-24, 2019)

NOTICE TO CREDITORS

Probate No. 35-2019-PR-00012

IN THE DISTRICT COURT OF PIERCE COUNTY, STATE OF NORTH DAKOTA

IN THE MATTER OF THE ESTATE OF FRANK L. BROSSART, DECEASED

NOTICE IS HEREBY GIVEN that the undersigned has been appointed co-personal representative of the above estate. All persons having claims against the said deceased are required to present their claims within three months after the date of the first publication or mailing of this notice or said claims will be forever barred. Claims must either be presented to Lorraine Myers, 7641 10th Ave. NE, Willow City, ND 58384, or Dwayne Brossart, 2690 78th St. NE, Willow City, ND 58384, or filed with the Court. Dated this 6th day of August, 2019.

/s/Lorraine Myers Lorraine Myers Co-Personal Representative

/s/Dwayne Brossart Dwayne Brossart Co-Personal Representative

/s/Galen J. Mack Galen J. Mack, Esquire Mack Law Offices, P.C. PO Box 196 Rugby ND 58368 Attorney for Personal Representative (August 17-24-31, 2019)

ABBREVIATED NOTICE OF INTENT TO AMEND ADMINISTRATIVE RULES

relating to Definitions, Supervision Standards, Modes of Practice, Registration and Examination of Physical Therapists and Physical Therapists Assistants.

ND Board of Physical Therapy

will hold a public hearing to address proposed amendments of portions of Title 61.5 of the North Dakota Administrative Code dealing with the definitions, supervision standards, registration, modes of practice and examination of physical therapists and physical therapy assistants.

Wheeler Wolf Law Firm 220 N. 4th Street Bismarck, ND 58501 Tues., Sept. 24, 2019 10:00 a.m. (CST)

A copy of the proposed rules may be obtained by writing or calling the board at 106 Eastern Avenue, Grafton, ND 58237, phone (701) 352-0125, or may be viewed or downloaded at the board's web page: www.ndbpt.org. Also, written comments may be submitted to the board at 106 Eastern Avenue, Grafton, ND 58237, any time prior to the public hearing or within ten (10) days thereafter. If you plan to attend the public hearing, and will need special facilities or assistance relating to a disability, please contact the board's counsel listed below at least five days prior to the September 24, 2019, public hearing.

DATED: August 12, 2019 NORTH DAKOTA BOARD OF PHYSICAL THERAPY BY: /s/ Jack McDonald, Counsel Special Assistant Attorney General Box 1776, Bismarck, ND 58502-1776 Phone: 701-751-1776 Fax: 701-751-1777 jackmcdonald@wheelerwolf.com

(August 24, 2019)