



MOUNTRAIL COUNTY SOUTH COMPLEX

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Keep Palmer Amaranth From Spreading

This noxious weed has been found in additional North Dakota counties every year since 2018.

North Dakota producers need to be vigilant about keeping Palmer amaranth, a particular noxious weed, off their land. This weed has been found in new North Dakota counties every year since 2018, and 2020 was no exception.

One source of introduction in 2020 was through contaminated grain screenings. Samples pulled from a pile of sunflower screenings detected up to 1,000 Palmer amaranth seeds per pound of screenings from one source.

In one case, screenings had been fed to cattle and Palmer amaranth was detected in fields where cattle grazed and also fields where manure was spread as fertilizer.

“This serves as a reminder that grain screenings can be a major pathway of Palmer amaranth introduction into the state, especially if the screenings originated from areas of the country where Palmer amaranth is the most abundant.

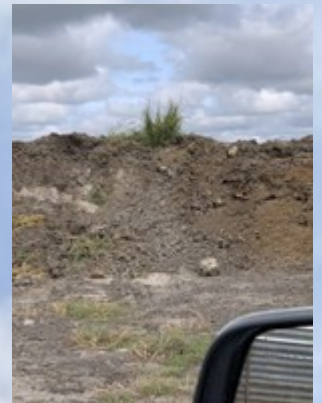
“Grain screenings are usually a price-competitive source of cattle feed, but they might contain things that you don’t want at any price, such as Palmer amaranth,” warns Karl Hoppe, Extension livestock systems specialist at the Carrington Research Extension Center (CREC).

“However, grain screenings can carry viable weed seeds that germinate in unusual locations. “Where the screenings are unloaded can lead to the start of a weed infestation. These areas proliferate in feed yards that do not have fastidious weed control.”

Extension weed scientist Brian Jenks says, “While this weed looks like a pigweed, it is resistant to many of our commonly used herbicide modes of action, it is extremely prolific in its seed production and it can spread like wildfire.”

“Composting manure should destroy weed seed viability; however, management practices will determine success,” says Mary Keena, livestock environmental management specialist at the CREC.

Palmer amaranth is growing out of a manure pile. (NDSU photo)



Palmer amaranth seed is sorted out of screenings. (NDSU photo)

Making sure the moisture of the compost pile is maintained at 50% and the pile reaches temperatures of 140 to 160 F throughout the composting process is critical, she says.

A guide to the process and management of animal manure compost is available at <https://tinyurl.com/AnimalManureComposting>.

“But if just one seed survives being eaten by cattle and escapes the heat in composting, and then is spread onto a crop field, then that one plant can make up to a million seeds in a year. “Even in direct competition with a crop, these plants can still produce up to 100,000 seeds in a year.”

Corn Silage 2020

Frost came early in September 2020 and many producers are wondering about silage quality.

Traditionally, frost signals the beginning of corn-chopping season. After the frost, the plants begin to lose moisture. When the corn plant reaches 63-68 percent moisture, optimal for the ensiling process, harvest begins. This year, most corn plants were still maturing when an early frost nipped most of North Dakota. When the intent is to harvest corn for silage, producers plant a later-maturing corn variety to take advantage of higher tonnage yields. These plants were wet and seemed to have held their moisture after the frost. Consider that corn leaves are only a small percentage of the weight in a corn plant. Most of the corn plant weight is in the grain, cob, and stalk. While leaves contribute some feed value to the corn silage pile, most of the silage volume is from the rest of the plant.

Silage yields are reportedly lower this year than previous years. This could be due to the frost and the subsequent early harvest. Some fields were already drying down prior to the frost.



Frosted late-season corn didn't reach maturity

Making good silage starts with sufficient moisture. When chopped too wet (greater than 68% moisture) horizontal silage piles may seep moisture. If corn is chopped at more than 80% moisture, improper fermentation will occur and a rancid smell may develop. When chopped too dry (less than 60% moisture), the silage pile will ferment but never reach a stable acidic pH. In 62-68% moisture silage, microbes stop growing when enough acid is produced during fermentation. This stabilizes the silage for future use.

Silage that is put up too dry continues to ferment through the feeding season. It will be warm, develops a brown color, and has a caramel scent. Continued microbial heating causes nutrient loss from the silage pile. While cattle may eagerly consume drier silage, nutrient loss and spoilage is greater than in a properly-preserved 62-68% moisture silage. Inoculants can help stimulate the fermentation process. These are aggressive microbes that quickly drop silage pH. Covering a silage pile with plastic to reduce moisture loss will reduce spoilage.

Marestail / Horseweed

a.k.a. – Canadian horseweed, Canada fleabane

Marestail or Horseweed is a native annual forb. With the advent of no-till farming practices and repeated use of glyphosate products, Marestail has become glyphosate-resistant and a major weed problem.

In recent years, Marestail has increased in the pastures and rangeland as well in crop and forage land. Questions that need to be answered about Marestail in grazing situations are - Does the high density of Marestail in the pastures and rangelands affect desirable forage? Does a high density of Marestail discourage grazing? Do some herbicide applications after early May still have an effect on controlling Marestail?

Description

Origin: Native throughout much of North America. Numerous Native American peoples used the plant to treat various ailments. **Ecology & Habitat:** Marestail is a winter and summer annual. It reproduces / spreads by seed. Seed viability is generally 2 to 3 years, but some studies have found seed viable after 20 years in pastures. The seed does not need a dormancy requirement to germinate. Seeds germinate on or near the surface of the soil and form a rosette. Seed is generally spread by the wind. Mature plants bolt and form a series of seed heads and have a tap root system. Marestail can grow in height from one to 6 feet or taller. Total seed production is proportional to plant height with taller plants producing up to 230,000 seeds. Marestail can be found in grasslands and disturbed sites, including riparian areas. The plant is adaptable to a broad range of soil conditions and types.

Marestail contains tannic acid, gallic acid and volatile oils that may cause skin and mucosal irritation in animals and humans, especially horses. Marestail also contains allelopathic chemicals, which can inhibit germination and growth of several other plant species. Herbicide resistant biotypes have developed over the years.



Test, Don't Guess - Sampling and Testing Hay

Hay samples should be taken using a hay probe or a core sampler. Winter is here and the weather reminds us of the changing of the seasons.



There is a tremendous range in hay quality depending upon level of maturity, fertilization, growing conditions, harvest circumstances and storage methods. Accurately sampling and testing hay is the only way to get a real understanding of the nutritive value of feed. Using values from previous years or a “book value” can be costly since a producer may incorrectly develop a ration using values that aren't representative.

Guidelines for Sampling

When sampling hay, **getting a representative sample is a critical first step.**

Samples must accurately represent the entire lot of hay. When obtaining a sample for analysis, it should be kept separate from other lots of hay.

Hay samples should be taken using a hay probe or a core sampler.

The hay probe should penetrate at least 12-18 inches into the bale. Using your hand to grab a sample will not consistently provide reliable results.

Hay probes are available from the Ag Agency to borrow. We also have the sample bags and forms to send them to the lab.



Analyze for Moisture, Protein & Energy

Cattle feeds should be analyzed for moisture, protein and energy. Producers may also want to have forages tested for key minerals. Feed sample results are usually reported on an as-is and dry-matter basis. If ration balancing is needed please contact the office and Jim will be happy to assist you in developing a ration for your operation.

Analyze Forages for Nitrates

In addition to moisture, protein and energy, annual forages harvested for hay such as millet, oats, sudan grass and sorghum-sudan hybrids should be analyzed for nitrates. These annual forages can accumulate high levels of nitrates under various growing conditions that can potentially reach toxic levels. The only way to know if high levels of nitrate accumulation have occurred is to test for it. Many times a \$11 feed test can be cheaper than a cow with the feet in the air.



Pruning Trees

When should I prune my trees and why should I prune my trees are two common questions I get from this time of year through late June.



The first question, "Why?", can have a lot of different answers. Modifying the appearance and preventing or treating disease are the two main reasons. Homeowners can have many different reasons for modifying appearance. It may be minor trimming to maintain a neater appearance. Unfortunately it is often to remedy a problem which started many years before. The wrong tree or shrub in the wrong place. Species and variety selection are the most common landscaping mistakes made by homeowners. Planting location is also part of this problem. Species and varieties with mature sizes which are too large for the planting location can be a costly mistake. Most tree and shrub species can be kept trim and neat if pruned regularly but all too often the pruning doesn't get done and a homeowner ends up hiring a tree removal/ pruning service to remove large trees or limbs that have become a threat to power lines, roofs, siding and other parts of the property. Roots of trees planted in the wrong place can also become a threat to sewer lines and building foundations. Smaller trees and shrubs can also become too large for their locations. Most shrubs like Lilacs and Caragana can be cut back either small amounts or all the way down to just above the soil line. These shrubs will regrow to a nice moderate size within a few years. Cedar, Juniper, and Arborvitae however will not get new buds and growth from old wood. Sever trimming or topping of these species can leave a very unsightly shrub or tree which will take many years to achieve a more normal appearance and may not ever do so.

The second part of the “Why” is disease prevention or treatment. Opening up the canopy of apple or other fruit trees allows freer movement of air throughout the canopy which speeds up drying of the canopy after a heavy dew or a rain event. This makes the tree much less susceptible to diseases of the leaves, branches, or fruits. It also makes applications of fungicides, insecticides or insecticidal soaps much easier and more effective when needed. Trimming of infected branches is an important part of treating diseases like fireblight.

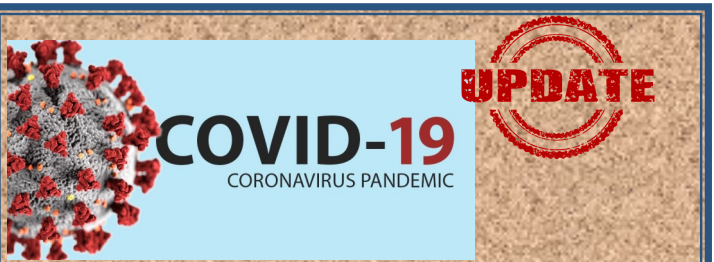
Pruning of apple and other fruit trees also lessens the fruit load of the tree allowing the tree to put more energy into a healthy root system and into development of next year’s buds. This may lessen this year’s crop but will provide a more consistent crop from year to year.

The other big question is “When”. That depends on both the species and the “Why”. Generally **late fall** or very **early spring** are good times to prune. Spring pruning of most species should be done before the buds start to swell. Waiting until after buds swell and trees begin to leaf out can weaken the tree and also leaves an open wound for disease pathogens which are active in warm wet weather. Late spring pruning of most species after they have broken dormancy will result in a great deal of weeping from the wounds which is both unsightly and a veritable “free lunch” sign to insects which can be disease vectors. For ornamental crab apple species and lilacs I like to wait until after bloom for major pruning. These species will develop next year’s flower buds on this year’s growth so pruning after flowering allows regrowth and the setting of buds for next year’s flowers.



Exciting News for Mountrail County Weed Control !

*As of October 27th we now have the ability to take credit cards for payment on your Weed Control bill !
Please contact the office for more information!*



With the recent spike in Coronavirus cases in Mountrail County and being moved into the “Orange” there are a few guidelines in effect at the South Complex.

- At this time the offices are remaining open with normal business hours.
- Masks are appreciated, but not required.
- All face to face meetings will be held in the conference room to allow for proper distancing.

We appreciate your understanding!

October is National Pasta Month!



So, How Many Pasta Shapes Are There?

ITA: Quindi, quanti formati di pasta ci sono?

It is estimated that there are approximately 350 different types of pasta - and about four times that many names for them! This is due to the fact that some types may have different names in different languages, or even in the same language: in Italy, for example, names vary according to the region or area. In addition, pasta manufacturers and cooks may come up with new shapes or give new names to old shapes...the possibilities thus become endless!

Italian pasta names often end with the masculine plural suffixes -ini, -elli, -illi, -etti or the feminine plurals -ine, -elle, to convey the sense of "little"; or with -oni, -one, meaning "large". Other suffixes exist too: -otti ("largish") and -acci ("rough", "badly made"). In Italian, all pasta type names are plural. Pasta ending in 'ini' may be a smaller version of a particular shape, and pasta ending in 'oni' the larger one. For example, spaghettiini (smallest), spaghetti (regular), spaghettioni (largest).

Pasta shapes are specifically designed to hold the sauce in the best way possible. Many regions have created their own pasta shapes: for example, bigoli (thick, noodle-like spaghetti) are from Veneto; strozzapreti (meaning, 'priest strangler') are from Emilia-Romagna; trofie (perfect with pesto) are from Liguria, and orecchiette (or, 'little ears') are from Puglia.



According to Academia Barilla's "I love pasta" recipe book, gnocchi is the forefather of all pasta; it evolved into other shapes by manipulating the dough by hand or using simple tools, mixing wheat and water to produce local variations.

The easiest way to categorize pasta is into long, short and soup shapes. Long pasta can be further divided into cylindrical, either solid or hollow, and rectangular or rounded. The first group includes such forebears as spaghetti and vermicelli. Examples for the second group include linguine, bavette and trenette.

Short pasta names and shapes were influenced by their times; for example, at the end of the 19th century, ditalini rigati were also known as garibaldini as a tribute to Garibaldi; mafalde and mafaldine were named in honor of Princess Mafalda of Savoy (or perhaps the daughter of a pasta maker!).

No matter the name or shape, pasta is a simple meal, synonym of Italy, and it is always sure to please everybody.

-Italy Magazine