#### SEARCH

#### Horticulture In North Dakota: Seasonal Tidbits and Tips (continued)

Extension Report No. 21, October 1999 Ronald C. Smith, Extension Horticulturist and Turfgrass Specialist

# **Summertime Care and Concern**

#### **Planting Melons**

Even though they take a lot of space and require a long growing season, many North Dakota gardeners cannot resist planting a few watermelons and muskmelons. Their basic requirements are full sun and well-drained soil. Heavy, poorly drained soil can produce good melons, but soil modifications with organic matter and careful water management are necessary to succeed.

Being warm season crops, they will not respond well if planted out too early in our cold spring soil. Many gardeners will cover the area to be planted with plastic to warm the soil for earlier planting. This also helps to get the weed seeds sprouted and killed before the melon transplants are set out.

Direct seeding is attempted by some gardeners with some success. Generally, they seed about mid-May in the southern part of the state, and around Memorial Day in the rest of the state. Transplants should be started about two to three weeks before the intended setting out date. Plants that have grown too large will not establish well. Basically, the plants should be set out when two true leaves have appeared. Use peat pots or similar containers where the plants can be moved with minimum disturbance of the root system. Planting sites should be protected from strong winds not only for the protection of the plants, but to allow the pollinating insects access to the flowers. This can be accomplished by planting a row or two of borage. This crop can be direct seeded, as it comes up easily. By the time the melon flowers are showing, the borage will also be in flower, helping to attract bees to the area.

For the typical home garden, the bush type of melons are best to consider, as the vines sprawl extensively creating problems of control.

Muskmelons are harvested when they can be easily separated from the vine, while watermelons can be harvested when the underside turns a pale yellow or, if a hollow sound results from a knock on the fruit with your knuckles.

#### **Fertilizing Strawberries For Best Fruit Production**

Established plantings of strawberries around the home often lead to frustration by the owner when they fail to bear good fruit, or are riddled with disease. Often, the strawberry plantings are border plantings to turf areas which get an unintentional fertilization from an overlap pattern during May lawn applications. Fertilize

June-bearing berries immediately after harvest, and again in mid-August to aid in flower bud development. Figure about 5 pounds of 5-10-5 or a similar analysis for every 100 square feet of plants.

Ever-bearing or day-neutral strawberries may be fertilized in the spring and again in August, using the same analysis as for the June-bearing cultivars, at the same rate.

## **Symptoms Of Nutrient Deficiency**

Other than the carbon, hydrogen and oxygen that are provided through the air and water, everyone knows that horticultural plantings need regular fertilization to remain productive and healthy. Plant nutrients are divided into the following groups:

Macronutrients: Nitrogen (N), Phosphorus (P), and Potassium (K)

Secondary nutrients: Sulfur (S), Calcium (Ca), and Magnesium (Mg)

**Micronutrients:** Boron (B), Chlorine (Cl), Copper (Cu), Iron (Fe), Manganese (Mn), Molybdenum (Mo), and Zinc (Zn).

#### **Deficiency Symptoms**

- N Older foliage turning yellow, dropping off, new growth normal
- P Leaf die-back, poor seed development, purplish coloration on old foliage
- K Leaf distortion, curling, premature leaf drop. Scorched older leaves
- S Yellow younger leaves, not interveinal, stunted growth, spindly
- **Ca** Rare deformed roots, dead terminal buds
- Mg Yellow-bronze color on lower leaves, with veins remaining green
- B Thickened, curled and brittle leaves, dead terminal buds, deformed fruits
- CI Not defined
- Cu Shoot tip die-back, spotting on young foliage, general chlorosis
- Fe New growth yellow, often interveinal, eventually turning white. Common
- Mn Similar to Fe, but with blackish specks on foliage
- Mo Similar to N deficiency, with rolled or cupped margins
- Zn Rosetted, yellowish foliage on new growth, "little leaf" appearance

Cool, wet weather can often show nutrient deficiencies, especially with iron. This often disappears with the weather warming up.

#### **Mulching For Better Plant Health**

The single most serious problem with ornamental plants in North Dakota is not a disease, insect or mite problem; it is environmental stress. Whatever is considered second, isn't close enough to recognize. Stress affects plant material in direct and indirect ways – where the damage is caused by the stress itself, and where stress weakens the plants to the point where they are vulnerable to insect and disease attack.

Stress is a problem in the plains region because we, in our landscaping efforts, are attempting to grow "alien" species (non-native for the most part). If the Great Plains were allowed to revert to their native state, we would find very few woody plant species. Home base for most of the woodies that are used in the landscape are forest environments. Turfgrass growing up to the base of landscaped trees is an unnatural state; in the natural state these same species are growing in a cool, moist, shaded soil covered by a blanket of decaying leaves and wood. Compare that with the capricious conditions of a typical landscape setting in the plains – extremes of heat and cold, prolonged dry spells, compacted soil, and turfgrass competition for water and nutrients.

Other than planting only the few native species in our landscapes, the stress problem can be alleviated by mulching the trees and shrubs we choose to plant. Here is a shopping list of the benefits of organic mulch:

- 1. Conserve water keeping the water available longer to the root system
- 2. Provide insulation against temperature extremes, resulting in less injury
- 3. **Provide a barrier for turfgrass**. This has a double benefit of keeping mowers away from the base of trees where injury can occur, and it eliminates the competition from turfgrass roots for water and nutrients
- 4. Weed control. Organic mulch at a depth of 4 inches will smother most weeds
- 5. **Soil condition** effects under the mulch, a result of the "organic tea" that results from gradual breakdown of organic matter.

A number of organic mulches are available to use. Wood chips or shredded bark, ground corncobs, soybean straw, leaves, grass clippings, sawdust. Rock mulches create heat islands, do not conserve water, and provide an opportunity for mischief. When applying mulch, put it on about 1" to 2" thicker to allow for settling to 3" to 4". Mulch an area equal to the drip line for maximum benefit to the trees and shrubs, as well as to the turf, which will do better in full sun anyway. Just be sure to keep a mulch-free zone (about 2"–3") around the trunk of the tree to minimize rodent damage in the winter.

While mulching will not be a cure-all for our woody plant problems, it can go a long way in relieving many of the stresses they now suffer. It will not "cure" trees that are poorly transplanted, or receive other improper cultural care, nor will it bridge the gap for trees poorly adapted to their sites.

# **Proper Watering**

As often as it has been said, it still needs repeating. Many homeowners fail to understand what the term "proper watering" means. First of all, it means that if rainfall is sufficient in the region and at a particular site, the irrigation system does not need to be turned on, nor the landscape plants watered. When watering is necessary, doing it wisely will save time, money and of course, water! Once again, here are the pointers:

- 1. Water deeply and infrequently. This pattern will help to develop deep, penetrating root systems, capable of mining water and nutrients from a larger volume of soil.
- 2. **Make water applications uniform**. This is accomplished via a properly designed and installed automatic irrigation system, but can also be carried out with the thoughtful placement of a sprinkler.
- 3. Water efficiently. This means making water applications when environmental conditions will favor maximum utilization by the plant. Early mornings are best, while evening hours are the worst. Vegetable and fruit plantings are most efficiently watered via drip systems. Part of efficient watering is delivery at a rate the soil will allow to infiltrate without run-off. Water going down the drain or on the sidewalk does not do the plant material any good.
- 4. Mulch where appropriate, for all the reasons given earlier.

#### **Beware of Some Combination Products**

Weed & Feed and Ortho Home Orchard Spray are two good examples.

The first product is often promoted early in the spring to get rid of weeds and fertilize the grass. Two major points to be made here:

- 1. This product contains a pesticide (weed killer) and should be handled accordingly. Most of the time it is handled by the homeowner as simply a fertilizer.
- 2. When the timing is right for weed control, it isn't right for lawn fertilization. When the product contains a preemergent herbicide like Pendimethalin, it is best applied when the grass is still dormant. Adding fertilizer at this time benefits the grass very little, and the perennial weeds (which are already actively growing) get a boost. Applying this material when the grass is actively growing misses the opportunity for pre-emergent control, having no effect on the already sprouted weeds.

Add to that the extra cost of a combination material and the fact that the dry application of herbicide is not as effective as a liquid application.

The Ortho product is a combination of fungicide and two insecticides. If one reads and understands the label, very few problems will arise. But, how many people know when bees are not active? The label says to apply this material during blossom time to control brown rot, a fungal disease. The insecticide component (malathion and methoxychlor) is very toxic to bees, and if sprayed during high bee activity (midday) a large kill could take place, with the result being poor or no fruit set.

The fundamental drawback of these combination materials is that seldom are both ingredients needed at once, resulting in waste. Better results will be realized when each cultural practice is separately tackled. If annual weedy grasses are a problem, apply the appropriate pre-emergent herbicide, then fertilize with the right analysis material when the grass begins active growth.

Daconil 2787 is a broad spectrum fungicide that can be used to control brown rot and other diseases, and several effective insecticides are available for insect control that have a lower bee toxicity. Using separate products to take care of specific problems carries with it a small bit of inconvenience, but a big step toward environmental responsibility.

#### **Mowing New Lawns**

Often the question arises, "When can I mow my seeded lawn? Some grass is 4" to 5" tall and there still are some seeds that have not germinated." **Answer:** Mow the new seedlings at 2", as soon as some of the grass is 3" tall. Frequent mowing at this height initially will encourage tillering, give the bluegrass a chance to fill in, and result in a thicker lawn, quicker. Once matured, the grass can be maintained at this height. Or, for better stress resistance, fewer weeds, lowered water requirements, and deeper color, mow at  $2^{•}$ " to 3".

#### Weather Related Garden Problems

Environmental extremes, which are normal in our region, can be the cause of many garden problems. These problems may eventually become infectious or simply be the direct result of a major weather shift with no

biotic basis.

**Blossom Drop:** Failure of plants to set fruit – tomatoes, peppers, snap beans. Caused by temperature extremes or dry conditions. Tomato and peppers will often drop flowers if the temperature goes below 55 degrees Fahrenheit or above 75 F. Generally when temperatures stay consistently high, and when uniform watering is followed (deeply once or twice/week) fruit set will increase.

**Bitterness:** Cucumbers are noted for this when they are grown under stress, which includes high temperatures, droughty conditions, and disease problems. Keeping the plants well-watered and free of disease will have an impact on reducing bitterness. Cultivars differ in their tendency to produce bitter fruit. `Sweet Slice' and `Burpless Hybrid' are known to have fewer problems.

**Blossom-End Rot:** Tissue deterioration at the blossom end of the fruit, turning brown or black. Secondary fungal organisms are usually present in advanced stages. Found in tomato, pepper, and summer squash. Caused by the plant's inability to uptake sufficient calcium for the developing fruit. This commonly is a result of root damage, fluctuations in soil moisture, or excess nitrogen fertilizer. Avoiding over-fertilization, maintaining an even moisture regime and taking care in mechanical cultivation will reduce occurrence.

**Sunscald:** White or yellow areas on the sides of the fruit, with the eventual collapse of the affected areas. Secondary decay organisms may invade damaged areas. Tomatoes and peppers are affected, usually after defoliation from a leaf spot disease, during extreme periods of heat. Select disease resistant cultivars, protect from disease development with timely sprays. Grow plants in cages or as a vine for maximum foliage protection and reduction in disease development.

**Cracking:** Deep, radial cracks at the stem end of tomato fruits. It will typically show up following a heavy rainfall or irrigation after a long period without rain, accompanied by high temperatures. The larger, later maturing cultivars are most prone to cracking; smaller, earlier cultivars are generally not as susceptible. Mulching and uniform watering will help in reduction of cracking.

#### **Shedding Bark**

Shedding bark is a normal consequence of growth on most trees. When young, the bark of most trees is smooth and thin. As it matures, the bark layer thickens, the outermost layer dies, and the bark is pushed farther from the cambium, forming ridges. Silver maples, elms, and birches are some of the trees that do this in our area. The Shagbark Hickory and Sycamore, popular trees east of the Mississippi, are known for this characteristic. In fact, the material makes good kindling. In Ohio, the mature Redbuds would often peel off long strips of bark, revealing an orangish-brown inner bark. As long as this is happening on older trees, nothing to worry about. On young trees this may be a symptom of sunscald, which could eventually kill the tree, if further protective action is not taken.

#### **Dealing With Summertime Turfgrass Diseases**

The upper Midwest offers a wide variety of climatic and soil conditions. However, when a particular "weather cycle" sets in, such as a rainy one, turfgrass diseases that are normally regionally isolated can become contagions across the region. Such was the case during the summers of 1998-99. Comments like what was "this red powder" all over the grass or, "what is causing my grass to die in patches?" Dealing with lawn problems were frequent during this period.

The purpose of this section is to give the homeowner some basic guidelines in assessing some common lawn

problems, and the steps that can be taken to correct, and hopefully prevent their recurrence.

Here are the top five most common disease problems with home lawns:

 Snow molds – pink and gray. Both are brought on by wet, unfrozen conditions under snow, or without it. Different organisms – *Fusarium nivale*, for the pink snow mold, and *Typhula incarnata* and *T. ishikariensis*, cause similar symptoms to the causal observer. Both begin as light yellow-green areas, with the infected turf becoming bleached, and in the case with the pink snow mold, a slimy appearance and pink coloration around the edges. Pink snow mold tends to remain patchy, while gray snow mold will tend to run together and form large patches.

**Management:** With the last mowing, cut the grass shorter than usual, especially in a particular area with a history of snow mold problems. Do what ever is possible to improve surface drainage; core aerate in the fall (around Labor Day weekend), re-contour the area with topsoil to keep water from collecting, and avoid late season fertilization that would over-stimulate the grass into soft, succulent growth.

Generally, Kentucky bluegrass is not as severely damaged by the snow mold fungi as bentgrass, resulting in very little lethal damage. If this fungus recurs in a given area, overseed with Park Kentucky blue, as it is one of the most resistant cultivars on the market.

Chemical control is usually not necessary and is often too expensive for home lawn treatment. Banner, Rubigan, Termec, and Bayleton are the systemic fungicides used on golf course greens to help control these diseases.

2. Necrotic ring spot – Leptosphaeria korrae. This disease starts out as yellow patches in the spring or fall. The resulting straw-colored patches (dead grass) surrounding a swatch of green live grass (creating a "frog-eye" effect) then shows up in midsummer. The roots in the straw-colored patches are dead, and at that point no amount of fungicide is going to do any good, as the damage was done earlier in the season when the pathogen was active. Many times re-colonization of the dead areas begins with aggressive Kentucky bluegrass cultivars. Otherwise, weeds begin filling the void of living plant material.

**Management:** This disease lends itself to good IPM practices for control. If the yellow patches are noted in the early spring, and a lab test confirms the presence of the pathogen, *L. korrae*, and the homeowner has an automatic irrigation system, daily watering with 0.1 to 0.2 inches of water will keep the infected grass alive, showing none of the "frog-eye" symptoms. Keeping the thatch and upper soil layer moist continuously will increase anti-fungal bacteria activity, helping to prevent new infections in late summer and early fall.

Adequate nitrogen level maintenance is necessary for both recovery and prevention. Research has shown that natural sources of this element in products like Restore, Lawn Restore, and Milorganite will help provide this balance and supply a bank of microorganisms to stimulate the natural microflora that will help suppress the disease.

Fungicides are effective only when used in a preventive manner . Rubigan and Banner are two common choices.

3. Summer Patch – Magnaporthe poae. This is typically a problem with peat sodded lawns on heavy clay soils, during periods of high temperature stress and excessive irrigation. The symptoms are similar to necrotic ring spot, showing a "frog-eye" appearance. Only lab tests can determine which disease exists, so both of these diseases are dubbed "summer patch disease syndrome," with treatments for control being the same.

Summer patch is evident when a sodded lawn with heavy thatch is watered on a daily or everyother-day basis, resulting in oxygen being driven out of the root zone.

In addition to using the same treatment schedule, as in managing necrotic ring spot, in controlling this disease, core aeration of the sodded turf will help in the oxygenation of the root zone. This can be done annually or twice annually; around Memorial Day and again around Labor Day weekends.

4. Cottony Blight – Pythium spp.. This disease is a relative to damping-off which is often experienced while starting seedlings. It develops during hot, humid weather toward the latter part of the summer in areas that are noted for poor air circulation and poor surface drainage. Suspect this disease if a section of lawn seems to have turned brown literally overnight. It also often shows first with a cobweb-like fungal growth that is mistaken for spider webbing. Many times the disease stops at that point, with nothing more than isolated dead spots which recover in cooler weather.

**Management:** Good surface drainage is essential to control this disease. Annual core aerations would help, along with proper irrigation timing and duration. Early morning, infrequent irrigations are best. Avoid nighttime watering altogether. Maintain an adequate, but not excessive nitrogen level.

The fungicides like Banol, Subdue, and Ailette will help control the further spread of this disease, but nothing beats good cultural practices in preventing it.

5. Rust – Puccinia spp. This disease is one that draws the most exasperated reactions by homeowners because of the "orange dust" all over their mowers, shoes, and pants. It generally shows up on lawns that have been seeded within the last year or so, and that may be under some drought, heat, or nutrient stress. Showing up in late summer, many homeowners fret that it may kill their lawns. This is not likely to happen, although the pathogen is known to be fatal to turfgrass.

**Management:** The best management is to correct the deficiency, which is usually nitrogen. Make a light application, about 0.25 to 0.50 pounds of actual N per 1000 square feet, and water in. The resulting growth can be mowed and collected in a bag for disposal to minimize the spread of the inoculum. In most cases, the rust becomes a non-problem after the grass matures and is under a regular maintenance regime that includes maintaining the N fertility level.

This disease generally causes more emotional harm to the homeowner than it does to the turfgrass.

Back to Contents

# **Fall Into Winter with Good Horticultural Practices**

#### **Division of Perennials**

"When should I divide my perennials?" is a common question. As a sweeping generalization, they should be divided in the season opposite their flowering time: spring flowering divided in the fall, fall flowering divided in the spring. Many summer blooming plants can be divided in either the fall or spring. This allows for maximum energy utilization for foliage and root production, with the result being healthier and showier flowers the following season. Here is a list of some perennials that can be divided in the fall:

Achillea x `Coronation Gold' – This is one that can be divided in the spring as well. Does best in full sun and well-drained soil. Divide every 3 to 4 years, or as desired.

*Ajuga reptans* – The bugle weed is a toughie that will grow in poor soils, making a nice ground cover. While it will tolerate full sun, it will grow better in light shade. May not be hardy in the northern regions of the state, or where snow cover is poor.

Cerastium tomentosum – The Snow-In-Summer flowers in late spring, making an attractive mat with gray

foliage the rest of the growing season.

**Dicentra spectabilis** – Bleeding hearts will get about 2 feet tall, although some have been seen that are 4 feet or more. Does best in an east location or partial shade protected from the wind. Clumps can be divided in spring or fall.

*Hemerocallis spp.* – The Daylily is such a tough plant that division anytime during the growing season has been successfully carried out. Because of the aggressive growth it will usually need division every three to four years.

*Hosta spp.* – The plantain lily is a favorite because of the summer flower show, and their excellent shade tolerance. There are cultivars now on the market that will tolerate full sun. Divide in spring or fall as new plants are desired elsewhere.

**Paeonia lactiflora** – Peonies are the most durable of perennials, many times spanning generations in one location. Grows best in full sun and well drained soil. Be sure to include three buds with the division, setting it no more than 1 inch below the soil surface. Patience is often needed as it sometimes takes three years to rebloom after a division.

**Papaver orientale** – Oriental poppies are a favorite for early summer blooms, and are almost equally loved for the attractive, large ferny foliage. Will grow best in partial shade, but can take full sun. While they can be divided in the fall, success in re-establishment is difficult. Better to let them stay undisturbed, and purchase new plants.

*Phlox paniculata* – The garden phlox is commonly grown in eastern and southern gardens in North Dakota. Winter die-out may take place where the snow cover is poor. The spent blooms need to be removed to prevent self-seeding and a weakened stand. The clumps are dug every three to four years, and the roots removed to within 2 inches of the crown, and the crown replaced.

#### Seeding or Sodding a New Lawn

Fall is the best time to seed or sod a new lawn in North Dakota. The reason this is such a superior time to spring activity is because of the different type of growth occurring in the grass plant at that time. The energy produced by the grass foliage is being transported into the crowns, roots, and rhizomes, not in top growth. The turf gets well established for a good show the following growing season.

Other reasons for fall vs spring turf establishment:

- 1. Warmer soil temperature for faster establishment
- 2. More dependable weather
- 3. Fewer weed problems
- 4. Fewer insect and disease problems

When referring to "fall" in North Dakota, the time frame is anywhere from the first part of August to mid-September. Beyond that, wait if seeding is intended, until mid-October to dormant seed. The planting will take off and grow better than waiting until the following spring to get the seed down. With sod, success has been realized right up through mid-October. Just be sure the sod is watered before going into the winter months.

Forget about clean, weed-free straw. That's an oxymoron. All straw is dirty, containing weed seeds. The best practice to follow is to get the seed down first, then cover with hydromulch, which is a virgin wood-fiber, that **is clean** and free of weed seeds. Other than that, germination blankets are the next best choice. These will decompose over a 30 to 45 day period and not contribute any weed seeds.

# **Fall Weed Control in Lawns**

Fall is the best time for perennial lawn weed control. The applied herbicides will tend to be translocated to the root system for a more complete kill. Killing off weeds like dandelions and broadleaf plantain at this time of year will give the grass ample time to grow into the space left by the dead weeds. Couple this with a fertilization treatment, and one is almost assured of a weed-proof lawn the next spring!

For success, it is extremely important to identify the weeds to be controlled. For example, dandelions and plantain are controlled effectively with 2,4-D products, but they provide poor control of clover. Dicamba, by contrast, provides excellent control of clover, but only fair control of dandelion and plantain. Here is where a combination product is useful. A combination of 2,4-D, Dicamba and MCPP will give excellent control of all of those (and many others!) weeds. But, another point is that no matter what the combination product may be, some weeds are difficult to control, and will require repeat applications. Some examples being violets, ground ivy, and creeping jenny. Patience and persistence are needed to be successful.

# **Causes of Premature Leaf Drop**

Some years the leaves on deciduous trees will color and drop 30 to 45 days ahead of normal defoliation. This is often observed on ash, apple, elm, oaks, and hackberries. This early senescence is in response to stress the tree species are going through. The stressors could be environmental – extended drought, excessively high temperatures, pollution, flooding, and soil compaction to name a few. Insect activity or disease pressure could also be the culprit. Many times it is a combination of all these factors, coupled with the incorrect plant for the particular site.

Early defoliation should be a concern when it begins occurring before the end of August. Significant leaf loss at this time reduces the amount of stored carbohydrates in the woody tissue for next year's growth. The plant becomes stunted, further stressed, and eventually succumbs to either an environmental extreme or some biotic factor. Apple scab and other leaf spot diseases showing up on poplars contribute to a shortened productivity or lifetime.

To tell if a tree is going to make it for another year, examine the buds. If they are plump and soft, and the cambium is a fresh green color, chances are it will be back. If they are dry or undersized, the specimen may be a candidate for firewood.

#### Wildflowers

Landscape impacts with wildflowers are on the increase across the country, and for good reason. After a one year investment in labor and care, wildflower plantings typically need only an annual mowing to redistribute and scarify some seed.

To get started, try and select an area that is free of rhizomatous weeds like quackgrass or Canada thistle. Kill off existing vegetation with either chemicals like Roundup or via cultivation. The best time to establish a

planting is in early summer after the spring flush of weeds have slowed. If this time is missed, then a fall planting in mid-October can be undertaken. No germination will take place at that time, but the seeds will sprout with vigor the following spring. Do not fertilize, but do provide some water if conditions are dry at time of sowing. Some plantings consist of a combination of flowers and native grasses.

This diversity will attract many predator insects which will aid in providing destructive insect control. Of course, the main reason for wildflower plantings is the seasonal beauty they provide.

Some suggested companies to consider are:

Prairie Moon Nursery	Wildflower Nurseries
Rte 3, Box 163	PO Box 2724
Winona, MN 55987	Oshkosh, WI 54903
(507) 452-1362	(414) 231-3780

Iowa Seed Source 110 Middle Road Muscatine, IA 52761 (319) 264-0562 (SASE) Prairie Nursery PO Box 306 Westfield, WI 53964 (608) 296-3679

#### Recent Plant Variety Releases, Horticulture Plant Sciences Department, NDSU

#### **Trees And Shrubs**

Dakota Centennial Ash – *Fraxinus pennsylvanica* `Wahpeton' Prairie Spire Ash – *Fraxinus pennsylvanica* `Rugby' Prairie Dome Ash – *Fraxinus pennsylvanica* `Leeds' Prairie Gem Flowering Pear – *Pyrus ussuriensis* `MorDak' Copper Delight Juniper – *Juniperus communis* var *depressa* `ReeDak' Prairie Meadow Juniper – *Juniperus horizontalis* `ButteDak' Prairie Splendor Juniper – *Juniperus horizontalis* `MeDak' Prairie Mist Juniper – *Juniperus horizontalis* `MeDak' Prairie Elegance Juniper – *Juniperus horizontalis* `BelDak' Prairie Elegance Juniper – *Juniperus horizontalis* `BowDak' Blueberry Delight Juniper – *Juniperus communis* var.*depressa* `AmiDak' Dakota Goldrush Potentilla – *Potentilla fruticosa* `Absaraka' Dakota Sunspot Potentilla – *Potentilla fruticosa* `Fargo' Dakota Goldcharm Spirea – *Spirea japonica* `Mertyann' Dakota Sunburst Chrysanthemum – *Dendranthema grandiflora* `Hildete' Meadowlark Forsythia

#### **Fruits & Vegetables**

Dakota Gold Apple Wodarz Apple Hazen Apple Northern Lights Apple Discus Bush Buattercup Squash Dakota Grey Turban Squash Back to Contents

Extension Report No. 21, October 1999

County Commissions, North Dakota State University and U.S. Department of Agriculture cooperating. North Dakota State University does not discriminate on the basis of race, color, national origin, religion, sex, gender identity, disability, age, status as a U.S. veteran, sexual orientation, marital status, or public assistance status. Direct inquiries to the Vice President for Equity, Diversity and Global Outreach, 205 Old Main, (701) 231-7708. This publication will be made available in alternative formats for people with disabilities upon request, 701 231-7881.

INFORMATION ACADEMICS RESEARCH EXTENSION PUBLICATIONS CALENDAR WEATHER DIRECTORY

Information for Prospective Students

I

NDSU is an equal opportunity institution

This information may be copied for noncommercial, educational purposes in its entirety with no changes. Requests to use any portion of the document should be sent to <u>NDSU.permission@ndsu.edu</u>. North Dakota State University Agriculture and University Extension NDSU Dept. 7070, P.O. Box 6050, Fargo, ND 58108-6050