

# YARD & GARDEN REPORT

August 23, 2015

Vol. 3, No. 11

## Radiant and reliable

Chrysanthemum is the superstar of autumn—no other flower can match its brilliance in the late season.

That said, there is nothing brilliant about a *perennial* that blooms for only *one year*. Many mums planted this fall will not survive our winter.

Why not grow a fall bloomer that thrives in North Dakota? Something that will bloom this fall—and *next fall*.

Sedum is one of the most drought-tolerant, low-maintenance, hardy plants available. It's perfect for North Dakota and is especially well-suited for harsh, rocky soils. It's no wonder it is nicknamed *stonecrop*.

Sedum has year-round appeal. In spring and summer, its thick leaves (*Figs. 1, 3*) provide an attractive foil to other flowers. Once autumn arrives, its pink flowers command our attention while other flowers in the garden fade. You will notice that bees and butterflies are drawn to sedum (*Fig. 2*). In winter, birds hop on top of the flower clusters and poke at the seeds.

Sedum is a staple plant of every rock garden but it will grow in any well-drained spot. They are effective when planted in groups, along borders or as a large groundcover.

'Neon' is a very popular sedum. Its magenta blooms are absolutely brilliant. 'Autumn Joy' has been an attractive and consistent performer for decades. Autumn Charm™ is a sport of 'Autumn Joy' with variegated leaves (*Fig. 1*). Wow!

The latest series of sedum are the Sunsparklers®. These compact



*Figs. 1–4. Sedum is a tough perennial with attractive foliage and beautiful pink flowers. Shown in the bottom two photos is Sunsparkler® Lime Zinger.*

plants come in vivid shades of red, purple and green. The creeping, 8-inch-tall plants are adorned with deep pink flowers in autumn (*Figs. 3, 4*). They are hardy to Zone 4.

Fall is coming and chrysanthemums will soon be appearing at garden centers. Enjoy them, but also keep in mind there are more reliable fall-blooming perennials for us in North Dakota: sedums.

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## Grow your own gold

Do you want to improve the soil in your garden? Add organic matter. Organic matter is so valuable it is sometimes called “black gold” by gardeners.

The addition of organic matter will improve nearly every soil. In clay soils, organic matter breaks open the ground, allowing for better drainage and aeration. In sandy soils, organic matter helps soil to hold onto nutrients and water. Organic matter adds nutrients too.

Many gardeners use *manure* as their source of organic matter. This is great in most cases; however it is getting more risky now. The increased use of persistent herbicides in pastures has increased the likelihood that manure is contaminated with herbicide. Adding contaminated manure to a garden can stunt crops in a garden for years! With manure there is also the risk of bringing weed seeds into your garden.

Another option is to add *compost*. Again, you have to know the source of the compost and make sure it was not contaminated with persistent herbicide. Compost from contaminated straw or chemical-laden grass clippings can be toxic.

You can add organic matter to your soil by sowing a cover crop now. These crops will blanket the soil and protect it from eroding over winter. Cover crops will capture nutrients deep in the soil and bring the nutrients near the surface for next year's crop. Cover crops can collect snow, improve drainage and reduce weeds in the future.

Cover crops can be sown in any area of the garden that is finished producing vegetables. You can also sow between the rows of crops that are still producing.



*Figs. 5–7. A healthy soil is rich in organic matter. Cover crops of oats and winter rye can protect soil from eroding over winter, collect snow, recover lost nutrients below ground, improve drainage and reduce weeds. That's a lot!*

At this time of year there are two strategies for growing cover crops:

Oats (*Avena sativa*) should be sown now. The oats will put on good growth this fall and die over winter. It will be easily tilled into the soil in spring or mowed and left as a mulch (Fig. 6). This is a good option for land where you plan on growing early spring crops such as carrot, spinach and pea. Annual ryegrass (*Lolium multiflorum*) is an alternative to oats.

Winter rye (*Secale cereale*) can be planted anytime in September (the sooner, the better). Winter rye will grow vigorously this fall and begin growing again in spring (Fig. 7). This is a good strategy for land that will be planted late in spring with

warm-season crops (tomato, cucumber and squash). Mow and then cultivate the rye into the soil in early May. No-till gardeners can spray it with glyphosate in spring to kill it. Give it a couple weeks to break down and then plant your crops at the end of the month. Rye emits chemicals as it decomposes that suppress the germination of small-seeded vegetables such as lettuce and carrots. Large-seeded veggies and transplants are much less affected. Winter wheat (*Triticum aestivum*) is an alternative to winter rye.

Seeds are available from catalogs and farm supply stores. Sow oats at 4 oz., winter rye and winter wheat at 3 oz., and annual ryegrass at 2 oz. per 100 square feet.





## SUMMER BOUQUETS

Most flowers are cut when they *begin* to open. This includes sunflower, rudbeckia, snapdragon, lily and rose. Others (celosia, gomphrena and zinnia) are cut when *fully* open.



Harvest in morning after the dew has dried. Cut stems with a sharp knife or shears. Place flowers in a shallow container (such as a basket) or in a bucket of water. Keep cool and clean (bacteria will clog stems).



After harvest is completed, immediately place flowers in a clean container of water. Make final cuts for bouquets. Use a floral preservative in the vase. Keep bouquets cool and out of direct sun.



## TOXIC BERRIES

Fruits of most honeysuckle (*Lonicera* spp.) vines are red, glossy and mildly toxic. This plant has leaves that grow *opposite* of one another.



Black nightshade (*Solanum nigrum*) berries are toxic. Its bitter green fruits turn black when ripe. Its small white flowers resemble pepper flowers. Bittersweet nightshade (*S. dulcamara*) has shiny red fruits and



small purple flowers. It is toxic. As a general rule, never eat any mysterious fruits. Contact your Extension office for assistance. Fruits, flowers and branches with leaves are used for identification.



## LAYING SOD

Sod provides an instant lawn. Nearly all sod is Kentucky bluegrass and is suited for sunny areas only.

Soil prep is critical for success. If perennial weeds are present, kill



them with glyphosate (Roundup). Cultivate 10–14 days later. Turf needs 3–4 inches of topsoil; add if needed. Cultivate deeply and apply 4–8 pounds/1000 ft<sup>2</sup> starter fertilizer.

Purchase fresh sod and lay as soon possible. Stagger sod pieces



like laying bricks. Place tightly together; fill gaps with soil. Stake if needed to keep in place. Use a roller 1/3 filled with water to remove air pockets. Keep sod moist but not wet for 1–2 weeks. Aerate next spring to encourage deeper rooting.



# Problems found in North Dakota yards and gardens:

## GARDENS



**Fig. 17. Angular leaf spot**

Angular lesions turn brown and drop out. Avoid getting foliage wet. Stay out of garden when vines wet. Protect with copper sprays. Use resistant cultivars.



**F. 18,19. Aster yellows on carrot**

Affected roots are hairy and stunted. Tops develop multiple sprouts and turn purple/reddish. Disease is spread by leafhoppers. Eliminate weeds that harbor leafhoppers. Remove infected carrots. Sow resistant cultivars.



**F20. Pepper/tomato blossom drop**

Fruit setting is diminished under temp extremes (day temps over 90°F or night temps above 70°F or below 55°F). Winds, moisture extremes, pests and heavy fruit loads reduce setting. Be patient; minimize stresses.



**Fig. 21. Flea beetle**

Tiny (1/8-inch) pests create shotholes in radish and leafy greens. Young seedlings are very sensitive. Consider spraying carbaryl, neem or pyrethrin if 10–30% defoliation.



**Fig. 22. Hornworm**

Giant (3–4 inches), green caterpillars devour vines of tomato, nicotiana, potato and pepper. Only one or few larvae are found per plant. Remove and crush or toss into soapy water.



**Figs. 23, 24. Cabbageworms**

Moths lay eggs on cabbage, kale and broccoli. Larvae consume crops. Spray with *Bacillus thuringiensis* while larvae are small. Carbaryl, pyrethrin or spinosad will control mature larvae.



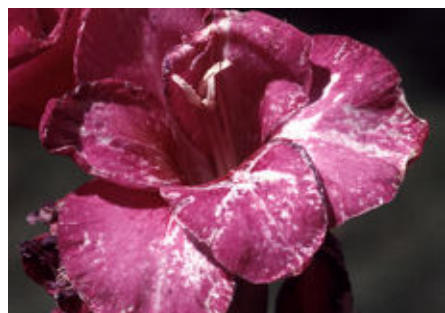
**Fig. 25. Bacterial gall on beet**

Bacteria infest wounds, which are often created by careless cultivation. Roots are inedible. Get these roots out of garden. Cultivate more carefully. Grow beets in other area of garden.



**Fig. 26. Harvesting watermelon**

Watermelons are ripe when the tendril next to the fruit dries. Rind of melon will be faded, not glossy. Mature melons feel heavy. Spot on underside of fruit will be white or yellow and not greenish.



**Fig. 27. Thrips on gladiolus**

White streaks appear on flowers and leaves. Flowers become distorted and turn brown. Tiny (1/16-inch) pests may be found in leaf folds. Pyrethrin, neem or spinosad recommended.



# More problems found in North Dakota yards and gardens:

## TREES AND SHRUBS



**Fig. 27. Root girdling**

Roots strangle trunks causing die back. Notice the lack of root flare at base of this excavated tree. Often associated with planting trees too deeply. Treatment is difficult if not impossible.



**Fig. 28. Powdery mildew**

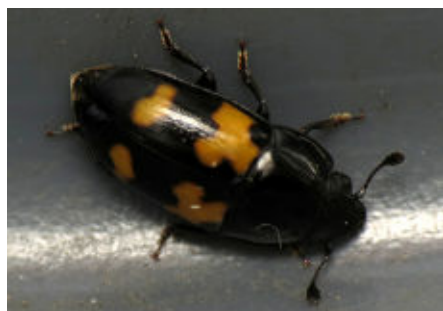
Gray blotches appear on leaves. Lilac, rose, honeysuckle are often affected, especially in shady spots with poor air circulation. Rake fallen leaves. Prune to increase sunlight and air movement.



**Fig. 29. Leaf scorch**

Leaf margins turn brown, especially on the south and west sides of canopy. Most common in urban sites, sandy soils, and with young trees. Irrigate deeply.

## FRUITS



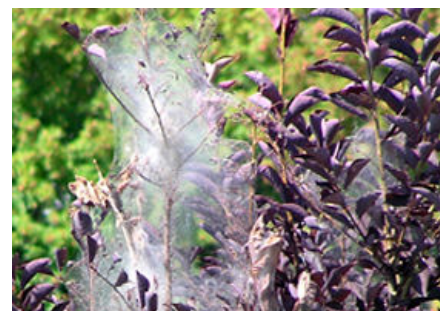
**Fig. 30. Sap beetles on berries**

These beetles attack overripe fruits. Harvest regularly. Do not discard fruits on orchard floor. Spray only at last resort; use malathion, spinosad or other insecticide with short residual.



**Fig. 31. Cedar apple rust**

Rust comes from junipers. In March, prune apples to increase air movement in canopy. Apply fungicides, especially when rain is expected, every 10–14 days; begin when blooms show pink and continue for 30 days after petal fall.



**Fig. 32. Fall webworm**

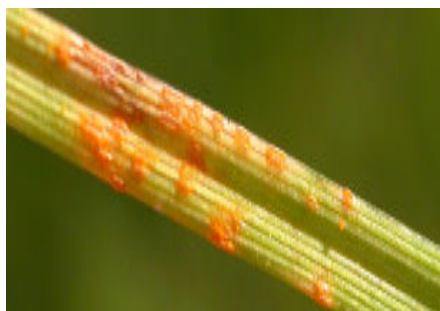
Caterpillars eat leaves but cause little long-term damage to trees. Larvae may be controlled with *Bacillus thuringiensis* (Dipel, Thuricide), pyrethrin or carbaryl (Sevin).

## LAWNS



**Figs. 33, 34. Brown patch**

*Rhizoctonia*. Tan lesions with smoky brown margins. Hot temps and wet blades at night lead to this. Irrigate in morning only. Azoxystrobin fungicide will stop spread. Dethatch if needed.



**Fig. 35. Rust**

Orange powder on blades. Fertilize and irrigate (irrigate mornings only). Collect clippings. Fungicides are rarely needed. Goes away in 2–3 weeks.



**Fig. 36, 37. Grubs/skunks**

Skunks dig for grubs at night, creating small holes in infested lawns. Kill grubs with carbaryl or trichlorfon; skunks will hunt elsewhere. Outdoor lighting or pie tins of ammonia will repel skunks.

# Weather Almanac for August 10–21, 2015

Site	TEMPERATURE				RAINFALL				GROWING DEGREE DAYS <sup>1,2</sup>			
	August 10–21				Aug. 10–21		2015		Aug. 10–21		2015	
	Avg	Norm	Max	Min	Total	Norm	Total	Norm	Total	Norm	Total	Norm
Bottineau	68	68	102	42	0.00	0.77	7.72	13.14	189	194	1551	1626
Bowman	69	69	100	45	1.69	0.38	11.99	11.60	190	214	1558	1667
Carrington	68	68	96	41	0.00	0.89	11.98	14.44	195	203	1636	1757
Crosby	70	66	103	43	0.02	0.58	7.38	11.30	205	185	1592	1500
Dickinson	71	68	101	45	0.27	0.58	9.19	12.50	208	205	1670	1649
Fargo	70	70	93	45	0.33	0.97	15.51	15.08	211	217	1868	1887
Grafton	69	67	95	41	0.13	1.21	16.38	14.34	197	188	1680	1634
Grand Forks	70	68	97	41	0.00	1.16	9.86	14.30	205	195	1739	1683
Hazen	69	70	103	38	0.00	0.66	8.90	12.55	195	222	1631	1817
Hillsboro	68	69	92	42	0.48	0.95	11.97	14.90	195	209	1718	1783
Jamestown	70	69	96	45	0.19	0.79	15.27	13.72	204	204	1773	1751
Langdon	67	65	97	40	0.06	0.99	10.42	14.09	178	166	1502	1399
Mandan	72	69	104	46	0.19	0.84	12.28	13.36	211	212	1748	1746
Minot	70	68	97	46	0.01	0.78	11.63	13.38	202	195	1667	1598
Mott	70	69	100	44	0.25	0.61	12.06	12.39	201	212	1633	1722
Rugby	70	67	101	43	0.00	0.81	8.89	14.50	199	189	1615	1623
Wahpeton	68	71	92	42	0.64	0.95	12.59	14.92	195	226	1783	1962
Watford City	72	68	104	45	0.02	0.56	8.01	11.18	210	202	1746	1674
Williston	72	71	104	46	0.00	0.64	7.26	10.71	212	231	1784	1879
Wishek	70	67	97	48	0.79	0.90	12.63	15.31	204	191	1663	1584

## DAYLENGTH (Aug. 23, McClusky, center of ND)<sup>3</sup> LONG-TERM OUTLOOKS<sup>4</sup>

Sunrise: 6:48AM | Daylength: 13h 54m | Aug. 28–Sep. 1: Temp: Above Normal; Precip.: Above Normal  
 Sunset: 8:42PM | Change since Aug 11: –37m | Aug. 30–Sep. 5: Temp: Above Normal; Precip.: Above Normal

<sup>1</sup> GDDs for garden vegetables are not available. GDD data in this table are for corn, which responds to temperature as most vegetables grown in gardens. Data begin May 1 with base minimum and maximum temperatures of 50 and 86°F., respectively.

<sup>2,3,4</sup> Sources: North Dakota Agricultural Weather Network, www.sunrisesunset.com, and National Weather Service, respectively.

## Credits

Cornell University. 2013. Improve your soil with cover crops. Cornell Univ.: Ithaca, NY.

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