North Dakota State University

NDSU EXTENSION SERVICE

YARD & GARDEN REPORT

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A natural beauty

North Dakota State University evaluates over 100 varieties of annual flowers every year. While waiting to take a tour of the annual flowers last week, I asked flower specialist Barb Laschkewitsch if there was anything special in the trials this year. Barb responded, "What do you think of gaura?"

I had never heard of it. Have you? If not, allow me to introduce you to 'Sparkle White' gaura. It's elegant. It's eye-catching. It's a natural beauty.

Gaura is a bushy plant with stems filled with airy blossoms. A closer look at the blossoms reveals their delicate white petals with a pink blush (*Fig. 1*).

The breezes blowing in the garden that morning created waves of sparkling white color. One can imagine this gaura will look amazing as a mass planting.

'Sparkle White' gaura will bloom all summer until frost. It has excellent tolerance to heat, wind, and dry soil—perfect for a low maintenance garden in North Dakota.

This versatile variety can be grown in sunny beds or in containers. Its long-lasting beauty through the summer will make it an attractive foil against the ever-changing colors in perennial flower beds.

'Sparkle White' gaura won the prestigious All-America Selections National Award in the USA and the Fleuroselect Gold Medal Award in Europe for superior performance. It seems everyone is impressed with this new flower variety and maybe you will be, too.

If you are ever in Fargo, visit the NDSU gardens at the corner of 12th Avenue North and 18th Street North. The gardens are free and open to the public. The largest collection of daylilies in the USA is adjacent to the annuals.

Figs. 1–3. The delicate blooms of 'Sparkle White' gaura are beautiful in the garden and as an accent plant in containers.

INSIDE THIS ISSUE

Improving your land

The first step to having a great landscape is to have great land. Your soil is the foundation to everything you do in your yard and garden.

Fortunately, North Dakota has some of the *best soils on earth*. Our fertile soils make us a leading agricultural state in the nation.

Unfortunately, North Dakota has some of the *worst soils on earth*. We have pockets of lifeless, sandy soil loaded with salts.

North Dakota has some of the *most altered soils on earth*. The economic boom of North Dakota is disturbing thousands of acres of land every year. The stripping and movement of topsoil on home construction sites is commonplace.

In sum, the soils in our state can be great or terrible—and sometimes both on a single property. It's important to understand your soil and how you can provide your landscape with the best foundation you can.

A soil test for a garden or landscape costs $18, but the rewards can be significant. A productive garden can produce hundreds of dollars of vegetables each year. An attractive landscape can add thousands of dollars to your property. A soil test is a great investment.

Fig. 4. Fertile soil can lead to a great landscape.

Getting your soil tested is easy. Choose an area of your landscape you want to get tested. In many cases it makes sense to get a soil analysis for your lawn and a separate analysis for your garden. Maybe you have a mysterious problem spot in your landscape—a soil analysis might be good for this spot, too.

To take a sample, use a small shovel and a clean container (a 5-gallon pail works well). We want our sample to be representative of the entire site and so let's take samples from several spots in the site. I was taught to make a path in the shape of a "W," taking a soil sample at every turn. Go about 4–6 inches deep and add the soil to the pail. Remove any leaves or roots from the sample. Mix the soil together to prepare a single composite sample. Put one cup of the sample into a paper bag and mail it to the NDSU Soil Testing Laboratory.

The lab will analyze the soil for major nutrients (nitrogen, phosphorous and potassium) as well as soil pH (acidity/alkalinity), salt content, and organic matter content. You will receive the results of the analysis and recommendations on how to fertilize your land in the future.

Now is a good time to get a soil test done. You will receive the results within a couple weeks and have time to make adjustments in your garden/lawn before winter arrives. Fall is the most important time to fertilize a lawn and it makes sense to know what type of fertilizer it needs.

Soil sample forms, mailing instructions, and more information is available at your local county Extension office or online at www.ndsu.edu/soils/services/soil_testing_lab/.

Fig. 5. This tree is starving. A soil test can tell you what fertilizer it needs.

Fig. 6. A soil test can turn a GOOD garden into a GREAT garden.

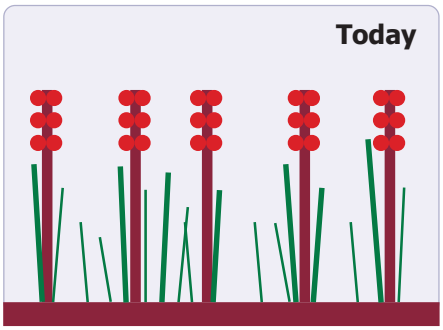

Fig. 7A. Second-year floricanes are bearing fruit. This year's primocanes (green) are growing.

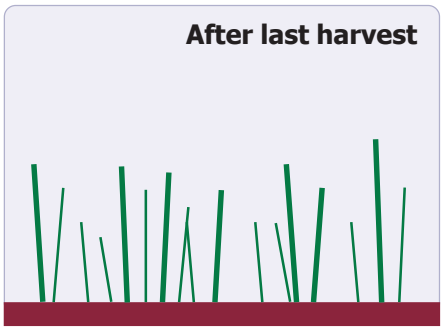

Fig. 7B. Remove canes that bore fruit; these canes die in fall. Let primocanes grow. They will mature into a reddish brown color.

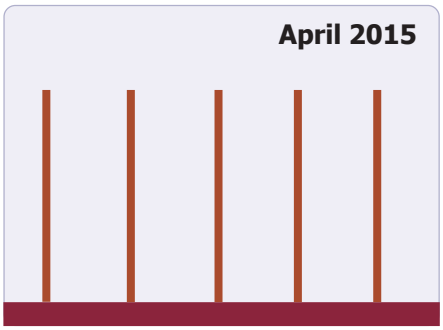

Fig. 7C. Thin to 4–5 sturdy canes per foot. Trim winter injury off tips. These canes will bear our 2015 fruit. New primocanes will develop from crowns for our 2016 harvest.

Pruning raspberries is easy

Raspberries must be pruned every year to produce good yields of high quality fruit.

Almost all raspberries grown in North Dakota are summer-bearing red raspberries grown in a narrow hedgerow. These are easy to prune. Here's how:

An individual raspberry cane lives for only two years. The first year it develops into a green cane called a *primocane*. In its second year the cane will bloom, bear fruit in summer, and then die. A second year cane is called a *floricane*.

Raspberry picking season is here. After your last harvest, prune out the canes that bore fruit (*Fig. 7B*). Such canes have served their purpose and will die this fall.

These floricanes are reddish brown and woody. They are easy to distinguish from the green primocanes. Use a lopping shears and remove the floricanes at ground level. Removing these dying canes will prevent diseases and give the primocanes space to grow.

In late March to April, thin the remaining canes to allow 4–5 sturdy canes per foot of row (*Fig. 7C*). This will maximize yield and fruit quality.

You may notice winter injury on cane tips. Remove this damage. This is also a good time to trim canes to about 5 feet in height.

The width of the bed should be no more than 18 inches across. If wider, the inner canes will not get the sunlight they need for quality fruit production. Canes that emerge outside the bed should be trimmed out.

For more information on pruning and training hardy raspberries, go online and download the publication *Growing Raspberries in Wisconsin*.

A safe approach to cabbageworm control

The annual dance of the cabbageworm moth is now underway. The delicate moths are fluttering up and down over our cabbage and broccoli plants.

Nobody likes wormy cabbage or broccoli, but the sight of poisonous Sevin dust on our vegetables is not very appetizing either.

This year's performance of these dancing moths is currently in its opening act. Eggs are being laid, but only tiny worms are being seen. We still have time to control these pests using a safe insecticide: *Bacillus thuringiensis* (Dipel, Thuricide).

The cabbageworms will eat the bacteria and die within a couple days. This bacterium is safe to humans as well as to birds and beneficial insects. It is a smart and safe approach to controlling this pest.

Fig. 8. Imported cabbageworm moth.

Survey of problems found in North Dakota yards and gardens this week:

TREES AND SHRUBS

F9. Powdery mildew on lilac

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.

F10. Chlorosis on silver maple

Leaves yellow, often with green veins. Associated with high pH. Foliar feed with soluble fertilizer containing iron. Root feeding this fall is beneficial. Get soil tested to assess pH.

F11, 12. Needlecast on spruce

Older needles turn yellow and drop. Black spores appear in stomata. Spray with chlorothalonil or copper sulfate in June and early July. Thin trees to promote air circulation.

LAWNS

F13. Lecanium scale

Scales stunt growth of branches. Their sticky excretion leads to sooty mold. Soft crawlers emerge from shells now; spray them with insecticide.

F14. Galls on leafy trees

Leaves develop bumps. Ash, linden, hackberry and silver maple among trees affected. Damage is mostly aesthetic. Pesticides not needed.

F15. Yellowing

Non-irrigated lawns go dormant due to summer heat. Avoid fertilizing and using herbicides. Mow tall. Lawns will awaken when temps cool in fall.

VEGETABLES

F16. Early blight on tomato

Brown lesions with concentric rings; yellow regions develop near lesions. Pick off infected foliage, protect with fungicides chlorothalonil, mancozeb, or copper. Avoid overhead irrigation.

F17, 18. Thrips on onion

Thrips feed on stalks, creating silvery blotches. These tiny pests hide within leaf folds. Jet sprays of water into folds can dislodge them. If damage is severe, spray malathion into folds.

F19. Herbicide injury

Pesticide drift or contaminated manure may cause extreme curling of foliage. Vegetables are contaminated. Avoid spraying herbicides in summer.

FRUITS

F20. Spotted wing drosophila

Tiny white maggots appear in fruits; often detected when refrigerated. Set out traps with apple vinegar to monitor. Spray if needed. Harvest regularly. Keep orchard clean of weeds.

F21, 22. Spur blight

Purplish cankers develop on lower area of raspberry canes. Prune and remove infected canes in dry weather. Spray lime sulfur when leaf bud tips appear in early spring. Prune regularly.

F23, 24. Chokecherry gall midge

Tiny fly lays eggs in flowers, which hatch into larvae feeding inside fruit. Infested fruits become swollen and hollow. Pick off damaged fruit in early summer. No pesticides recommended.

F25. Fire blight on apple, pear

Branch tips die back, often showing a “shepherd’s crook.” Prune out dying tips. Sterilize pruners between cuts. Delay any major pruning until winter.

F26. Pesticide burn

Copper lesions appear on foliage, particularly on south and west sides. Pesticides, especially sulfur and copper, can burn when applied under high temps. Minor defoliation occurs.

F27. Powdery mildew on grape

Gray powder develops on fruits and foliage. ‘Valiant’, a leading variety, is susceptible. Remove infested clusters. Sulfur sprays prevent spread. Prune vines in winter to increase air circulation.

WEEDS

F28. Buffalobur nightshade

Annual found in sandy soils and disturbed sites. Deeply lobed leaves with spiny berries. Not aggressive and easily controlled by mowing, cultivation or broadleaf herbicides.

F29. Chicory

Sky blue flowers found along roadsides and disturbed sites. Perennial grows up to 5 feet with deep taproot. Not aggressive. Mow. Spray with herbicide in fall, if necessary.

F30. Perennial sowthistle

Perennial may grow 4 or more feet tall. Cut to prevent seed dispersal. Its deep roots make pulling difficult. Spot spray with dicamba or glyphosate. Fall applications are most effective.

Weather Almanac for July 20–26, 2014

	TEMPERATURE (Week)				RAINFALL (Week)		RAINFALL (2014)		GROWING DEGREE DAYS[1,2] (Week)		GROWING DEGREE DAYS[1,2] (2014)	
Site	Avg	Norm	Max	Min	Total	Norm	Total	Norm	Total	Norm	Total	Norm
Bottineau	68	69	84	52	0.77	0.54	12.14	11.44	104	114	1044	1147
Bowman	70	71	94	46	0.55	0.47	7.72	10.53	115	126	1025	1138
Carrington	70	70	91	57	1.73	0.69	9.39	12.45	112	126	1107	1250
Crosby	67	68	82	52	1.01	0.55	10.05	9.90	97	108	1010	1045
Dickinson	70	70	92	50	0.26	0.51	7.14	11.09	115	120	1059	1138
Fargo	73	71	94	56	0.64	0.54	11.92	13.11	127	132	1340	1350
Grafton	70	72	92	54	1.46	0.62	14.94	12.14	108	132	1161	1353
Grand Forks	71	69	95	56	1.35	0.62	12.53	11.91	117	118	1251	1203
Hazen	70	72	92	51	0.88	0.49	11.33	11.06	117	126	1095	1280
Hillsboro	70	71	93	53	0.80	0.65	12.33	12.79	112	126	1228	1264
Jamestown	70	71	92	56	0.55	0.66	10.84	11.97	116	126	1156	1239
Langdon	67	66	88	54	1.49	0.67	8.03	11.89	91	102	982	985
Mandan	71	71	92	53	0.42	0.71	7.16	11.32	121	127	1158	1219
Minot	69	69	86	57	1.17	0.51	12.34	11.69	108	114	1091	1118
Mott	71	71	93	49	0.11	0.39	8.84	11.10	120	126	1066	1197
Rugby	70	68	89	56	1.27	0.74	10.26	12.52	110	111	1108	1153
Wahpeton	72	72	93	53	0.30	0.63	12.57	12.99	116	134	1303	1406
Watford City	72	71	95	52	0.55	0.47	6.98	9.88	120	125	1128	1162
Williston	71	73	91	53	0.54	0.45	6.23	9.31	121	132	1170	1318
Wishek	71	69	93	56	0.32	0.68	8.63	13.27	120	114	1073	1110

DAYLENGTH (July 26, McClusky)[3]

Sunrise: 6:12 AM | *Daylength:* 15h 13m

Sunset: 9:25 PM | *Change since July 19:* –16m

LONG-TERM OUTLOOKS[4]

6–10 Day: Temp: Normal; *Preciptation:* Below Normal

8–14 Day: Temp: Normal; *Precipitation:* Normal

[1] 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.

[2,3,4] Sources: North Dakota Agricultural Weather Network, www.sunrisesunset.com, and National Weather Service, respectively.

Credits

Sources:

Smith, B.R., D.L. Mahr, P.S.McManus, and T.R. Roper. 2007. *Growing raspberries in Wisconsin*. Univ. of Wisconsin: Madison.

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