

YARD & GARDEN REPORT

August 22, 2020

Vol. 8, No. 6

“Murder Hornet” Watch

Hornet populations explode this time of year.

This includes the populations of the Asian giant hornet, a vicious pest that invaded Washington State in 2019. Scientists and citizens in Washington are currently monitoring over 1,400 traps to exterminate the new pest.

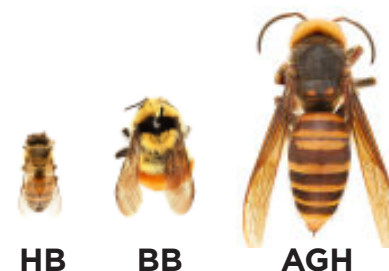
These persons are concerned because Asian giant hornets (AGH) (*Vespa mandarinia*) are ferocious bee killers. AGH may swarm and capture a beehive in hours. First, the hornets slaughter and decapitate the adult bees. Then they feed the honey bee brood to their own young hornets. This ruthless behavior has given AGH the nickname of the “Murder Hornet.”

Asian giant hornets are massive compared to the bees and hornets in North Dakota. AGH are the biggest hornets on earth; the females reach about 2 inches in length. Wow!

Our honey bees are defenseless. Their stingers cannot penetrate the “armor” of these huge hornets.

Because of their large size, AGH can deliver more venom than other hornets. When threatened, they will aggressively defend their colony and can sting repeatedly. Beekeepers may be at risk since the stingers of AGH can penetrate through some beekeeper suits, delivering nearly seven times the amount of venom as a honey bee.

North Dakota is the #1 state in honey production. Asian giant hornets may become a threat to us and our



The Asian giant hornet (AGH) is the largest hornet on earth. It's much bigger than the bald-faced hornet (BFH), the largest hornet in North Dakota. The diagram at right shows AGH is much larger than honey bees (HB) and bumble bees (BB).

honey industry in the future. **As of today, we have very little to worry about.**

AGH has not been detected outside of the Pacific Northwest. Its populations have been very low and vigorous efforts are being made to destroy all nests.

AGH will not sting humans unless it feels threatened and has not attacked any humans in North America to date.

Thank goodness for our bitter cold winters! It will be very hard for these foreign hornets to survive and become established here.

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Plant Health Care

Landscapes



Earwigs on Flowers

These creepy creatures eat leaves and blooms, particularly on plants growing in moist areas. Male earwigs (*left*) have widely curving pinchers; females (*right*) have straighter pinchers. Pinchers are used for protection and grabbing prey.

Reduce excess moisture. Irrigate infrequently and only in morning. Clean debris where pests hide. Thin mulch. Earwigs may be trapped at night in tuna cans baited with vegetable oil. Large plants tolerate damage but insecticides may be applied to mulch in severe cases.



Diplodia on Pine

This fungus often attacks stressed pines. New growth dies back from branch tips. After several years of infection, trees become disfigured and may die. A slow decline in health often occurs.

Prune out infected tips when dry. If practical, fungicides may be sprayed three times at intervals of 7–10 days when needles are 1–2 inches long (mid-May to mid-June). Reduce tree stress by irrigating during dry times. Avoid wounding trees and compacting the soil. Rake fallen needles and cones.



Vagabond Aphid Gall

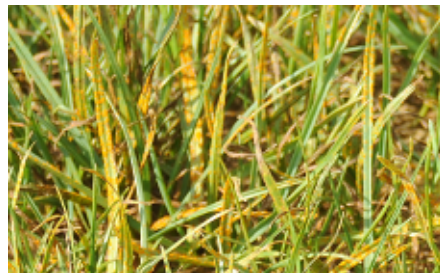
Aphids feed on expanding tips of poplar and cottonwood twigs in spring. This feeding causes folded structures to form. Aphids live inside the galls in spring and early summer. They will exit the galls in summer but later fly back to the same tree in autumn to lay eggs inside the galls and bark crevices. These eggs will hatch next spring, and the cycle continues.

Damage is mostly aesthetic. Galls may be removed in winter, but this is difficult since they are often located near the tops of trees. Treatments are not needed.



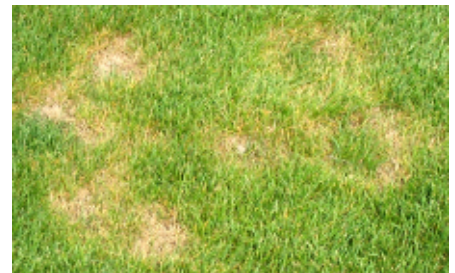
Sow Grass Seed

Now through mid-September is the best time to overseed. The ground is warm and seed germinates quickly. Rake soil and scatter seed. Rake to cover seed. Keep moist for 3 weeks.



Rust on Turf

Caused by infertile soil, high humidity, evening watering and shade. Get the turf to outgrow it. Fertilize. Irrigate (morning only). Collect clippings, if feasible. Usually goes away in 2 weeks.

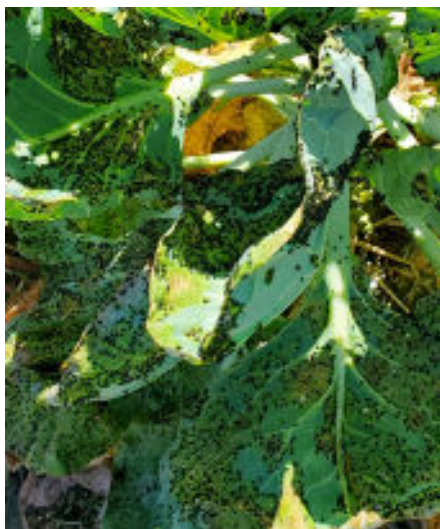


Necrotic Rings on Turf

Soil fungi create dead areas, often with green centers. Associated with drought, excess thatch and compacted soil. Promote healthy roots by aerating and fertilizing in September. Raise mower height.

Plant Health Care

Vegetables



Flea Beetles

Swarms of tiny (1/8-inch) dark beetles create shotholes in plants of cabbage family, including kale, broccoli, turnip and radish. Young seedlings are very sensitive. Consider spraying spinosad, soap or carbaryl if 10–30% defoliation.



Harvesting Onion

Harvest when tops have fallen over and shriveled. Keep in the garden for a couple days to dry. Shake off loose dirt and cure bulbs in a warm (80°F), airy spot until necks are withered (2–4 weeks). Store in a cool, dry place.



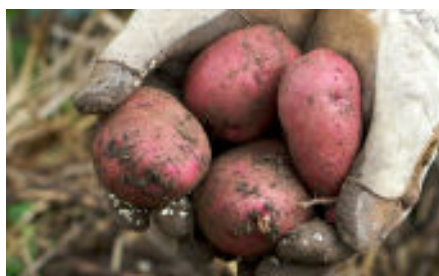
Blossom End Rot

Caused by calcium deficiency and associated with uneven soil moisture. Often prevalent on first fruits. Keep soil moist and do not damage roots when cultivating. Mulch vines.



Giant Zucchini

Harvest zucchini regularly—even if you don't know what to do with it. If you stop harvesting, the vine will direct its energy toward producing seeds in the giant fruits and stop flowering. This prevents future zukes from forming.



Harvesting Potato

Mature potatoes are harvested when leaves dry and die. Use a spading fork and avoid bruising the tubers. Cure for 2 weeks at 45–60°F. Brush off soil (don't wash) and store in a cool (40–45°F), moist (90% RH), dark location.



Tomato Spotted Wilt Virus

Unusual rings appear on fruits. Plants were infected as transplants by thrips. Pull out infected plants. Control weeds. In the future, select healthy transplants from weed-free greenhouses.



Early Blight on Potato

Brown spots with rings inside them appear on leaves. Remove infected foliage. Sprays of chlorothalonil, mancozeb or copper may prevent spread. Avoid overhead irrigation. Clean up garden this fall. Rotate crops next year.



Harvesting Watermelon

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

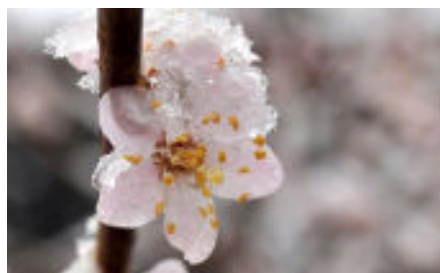
Plant Health Care

Fruits



Fall Webworm

Caterpillars eat leaves but cause minimal damage to the tree overall. The leaves were going to drop soon anyhow. Buds and branches are not damaged. No treatment is typically needed, but nests may be collected with a forked stick. Young larvae may be killed with *Bacillus thuringiensis*, carbaryl or a pyrethroid. Burning or cutting branches will cause more harm to the tree than the webworms.



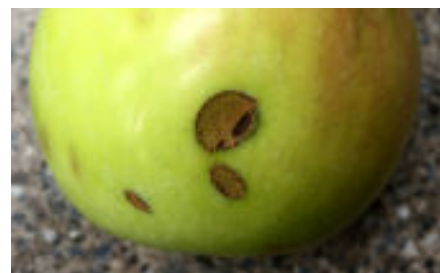
Fruitless Apricot Trees

Apricot trees may fail to set fruit because their flowers suffered frost injury, there was a lack of pollinators during bloom, or there was not a compatible variety within 100 yards. Mulch around trees to keep soil cooler in spring and prevent premature flowering. Plant apricot trees out of low spots and in an east or north exposure.



Honeycrisp Mottling

Yellowing is caused by starches failing to move out of leaves, reducing photosynthesis and chlorophyll in leaves. Affects 'Honeycrisp' trees with light fruit loads. Does not affect long-term productivity. Thin crops if needed in late spring for consistent yields year to year.



Curculio Scars on Apple

Damage is caused by weevils that scraped the skin to lay their eggs inside. The eggs were crushed by the enlarging flesh of the apple. Peel off the skin; the fruit is edible. Consider spraying next spring with insecticide at petal fall and 10–14 days later. Place a blanket under the tree and shake the tree. If weevils are present, they will fall onto the blanket.



Hornless Hornworm

Larvae of achemon sphinx moths are eating leaves of grape and Virginia creeper. The huge (5-inch) caterpillars lose their horns after molting, creating an eye-like spot (*inset photo*). They have amazing appetites but typically create little damage. Pick them off and destroy.

Credits

Sources:

Beauzay, P. and J. Knodel. 2020. Facts about the Asian giant hornet. NDSU Crop & Pest Report. May 14, 2020.

Pliesch. 2020. 6 things to know about the Asian giant hornet. University of Wisconsin, Madison.

Washington State Department of Agriculture. Invasive hornets. <https://agr.wa.gov/departments/insects-pests-and-weeds/insects/hornets>. Accessed August 18, 2020.

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photos/ johnkaminski/8402692568/; Lee Miller, University of Missouri, Bugwood.org. **Page 3:** Whitney Cranshaw, Colorado State University, Bugwood.org; Kitty Torkelson, NDSU; Mark, www.flickr.com/photos/eggrole/6011378943/; Paul Bach, University of Kentucky Research and Education Center, Bugwood.org; William M. Brown Jr., Bugwood.org; jc5083, www.flickr.com/photos/jc5083/2880715147/; Mitch Bauske, NDSU; Chiot's Run, www.flickr.com/photos/chiotrun/7556496698/ and www.flickr.com/photos/chiotrun/4951342385/; Forest and Kim Starr, www.flickr.com/photos/starr-environmental/25072142102/. **Page 4:** Dendroica cerulea, www.flickr.com/photos/dendroica/15169021341/; needpix.com; Madeleine Smith, NDSU; Esther McGinnis, NDSU; Joseph Berger, Bugwood.org; J.N. Stuart, www.flickr.com/photos/stuartwildlife/4894891448/.

Written by Tom Kalb, who expresses gratitude to the Horticulture/Forestry Team for their contributions to this report.

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NDSU

EXTENSION

Weather Almanac for August 15–21, 2020

Site	TEMPERATURE ¹				RAINFALL ^{1,4}				GROWING DEGREE DAYS ^{1,5}			
	Aug 15–21				Aug 15–21		2020		Aug 15–21		2020	
	Avg	Norm	Max	Min	Total	Norm	Total	Norm	Total	Norm	Total	Norm
Bottineau	69	67	90	47	0.00	0.43	8.33	11.23	121	104	1632	1626
Bowman	73	69	95	49	0.00	0.21	7.22	9.72	130	114	1631	1667
Carrington	71	68	92	50	0.01	0.52	8.37	12.65	129	108	1766	1757
Crosby	73	66	98	49	0.00	0.34	7.45	9.85	126	98	1561	1500
Dickinson	75	68	97	50	0.01	0.33	6.30	10.93	136	108	1753	1649
Fargo	72	69	87	53	0.05	0.60	14.40	12.47	134	116	2013	1887
Grafton	70	67	90	49	0.02	0.72	15.68	12.21	122	100	1792	1634
Grand Forks	70	67	87	50	0.11	0.68	12.44	12.27	127	104	1835	1683
Hazen	73	70	96	48	0.01	0.37	10.43	11.08	132	118	1719	1817
Hillsboro	70	69	85	52	0.14	0.56	17.10	12.67	127	111	1869	1783
Jamestown	71	68	89	51	0.00	0.48	7.36	11.92	127	108	1760	1751
Langdon	68	65	89	47	0.03	0.57	10.37	12.59	113	88	1551	1399
Mandan	75	69	97	49	0.00	0.46	5.32	11.95	138	112	1835	1746
Minot	73	67	96	52	0.01	0.46	7.18	11.24	129	104	1667	1598
Mott	73	69	97	47	0.02	0.35	8.74	10.32	128	112	1686	1722
Rugby	72	67	98	48	0.28	0.45	7.75	12.51	128	100	1677	1623
Wahpeton	70	70	87	52	0.02	0.58	14.70	12.93	126	121	1928	1962
Watford City	76	68	100	52	0.00	0.32	6.62	9.65	141	106	1739	1674
Williston	78	71	102	54	0.00	0.37	4.16	9.35	143	124	1784	1879
Wishek	72	67	90	51	0.00	0.47	8.38	10.85	135	101	1748	1584

DAYLENGTH (August 22, McClusky, ND)²

Sunrise: 6:47 AM Daylength: 13h 55m
 Sunset: 8:42 PM Change since Aug 15: –22m

LONG-TERM OUTLOOKS³

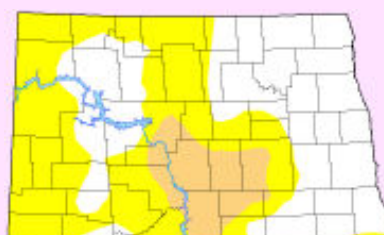
Aug 27–31: Temp.: Normal; Precip.: Above Normal
 Aug 29–Sep 4: Temp.: Below Normal; Precip.: Above Normal

^{1,2,3} Sources: North Dakota Agricultural Weather Network, www.sunrisesunset.com, and National Weather Service, respectively.

^{4,5} Rain data begin April 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.

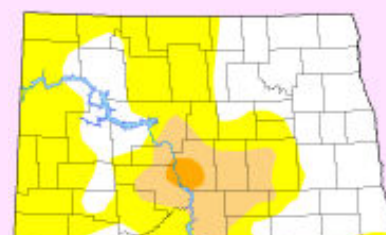
Drought Watch

Last week was dry across ND. “Abnormally dry” conditions persist in central and far western regions. “Moderate drought” conditions continue in south central ND. Scorching hot, dry weather has created “severe drought” conditions in the Burleigh/Morton/Oliver Counties junction. Long-term (6–14 day) outlooks show above normal rainfall. Sources: Adnan Akyuz, NDSU; Drought Monitor and NOAA.



August 11, 2020

Abnormally dry: 54% of state.
 Moderate drought: 11% of state.
 Severe drought: 0% of state.



August 18, 2020

Abnormally dry: 56% of state.
 Moderate drought: 13% of state.
 Severe drought: 1% of state.