

GROWING GARDENERS

GARDEN NEWSLETTER FOR MEDICINE HAT & AREA - AUGUST 2023

BEATING THE HEAT

This summer has been challenging for us gardeners; hotter days and nights, little rain, intense storms, hail, and heavy insect pressure from grasshoppers and blister beetles (to name a few). And yet, we continue to grow and adapt as we've always done.

In this month's newsletter, we continue our weed management series, **In the Weeds**, delving into why and how regular garden monitoring can help us make better choices to control weeds while protecting other plants and creatures. Many of us are feeling the pinch at the grocery stores as prices remain high, so we've compiled some **Harvest Tips** and best practices for storing our crops to maximize quality and nutrition. Southeastern Alberta has set some new heat records this year, which takes a toll on our plants and the soil, among other things. The **Heat Damage** infographic on page 3 breaks down some of the ways high temperatures can lead to lower yields, weird fruits and flavors, and discoloration we might be seeing.

For anyone looking to learn more about native species, riparian areas, and pollinators, we've shared some great **Events** one page 3 that are happening in our area in the month of August, including wildflower identification, nature walks and a film screening at the Library.

Our free weekly **Growing Gardeners Education Program** continues to run every Wednesday at 7pm until mid-September. Check out page 4 for the list of August topics and more information

The Growing Gardeners Newsletter aims to support gardeners of all experience levels in Medicine Hat and area. We are pleased to announce that this newsletter can now be delivered straight to your inbox each month during the growing season. To sign up for the mailing list, or share ideas, harvest recipes, suggestions, or inspiring garden photos to help us grow, please reach out by email to cfcagarden@gmail.com.

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THIS ISSUE

BEATING THE HEAT
PAGE 01

**IN THE WEEDS PART 3:
MONITORING**
PAGE 02

**HARVEST TIPS +
HEAT DAMAGE**
PAGE 03

**GARDEN CLUB
+ ABOUT CFCA**
PAGE 04



**"WHOEVER LOVES
AND UNDERSTANDS A
GARDEN WILL FIND
CONTENTMENT
WITHIN."**

-CHINESE PROVERB



IN THE WEEDS PART 3: MONITORING



It is easy to get stuck in the weeds when unwanted plants start popping up in our carefully planted gardens. A good weed strategy includes understanding, prevention, monitoring, and controlling weeds while protecting our health, the environment and our pocketbooks. In Part 3 of this series, we look at how to monitor for weeds throughout the season to inform our decisions about when and what we can do to manage them.

Rather than whipping out herbicide at the first sign of dandelions, responsible gardeners make decisions about tackling weeds by evaluating our sites. While there are certain cases where herbicide may become necessary, they are meant to be a last resort due to their negative side effects. Herbicides harm beneficial organisms like predatory wasps, bees, earthworms, and beetles that help control pests, improve soil and pollinate flowers. They can end up in our groundwater supply, contaminating the watershed on which we all rely. Weeds can also become resistant to herbicide if they are treated with the same product year after year. Our garden crops may be damaged as well by herbicides when they are applied improperly or excessively.

Monitoring the garden doesn't need to be a special occasion. Rather, it can be as easy as shifting our attention to take in a few details as we plant, prune, harvest, frolic or relax in the garden.

SCOUTING + COUNTING

Start by looking for beneficial species in the garden, such as birds, frogs, worms, and beneficial insects like butterflies, bees and lacewings. Make a mental note of their numbers and locations of nests or eggs.

In Part 1 we stressed the importance of understanding the weeds in our gardens. Scouting should include identifying the weed species, type (annual, biennial, or perennial) and stage of growth which can help to determine how best to manage them. Typically smaller weeds are easier to deal with than those that are well established. Look at the density and distribution of weeds in one square meter of garden. High weed cover is when more than 50% of the square is covered in weeds, 20%-50% is medium and below 20% is low.

If herbicides have been applied recently, look out for accidental damage to crops. This might appear as leaf curling, damage or discoloration, stunted or distorted growth, or even plant death. Some plants are more susceptible to herbicide damage, like tomatoes/potatoes, grapes, and melons.

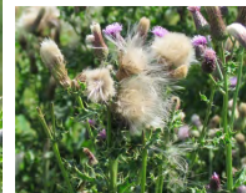
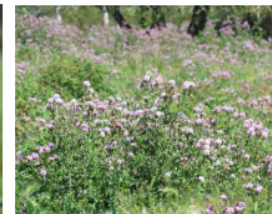
ACTION THRESHOLD

Fundamental to Integrated Plant Management (IPM) is the Action Threshold: the point at which the number of weeds and their stage of growth dictates that action must be taken to protect plants and prevent further weed pressure. Monitoring is necessary to know when the threshold has been reached. For farmers and market gardeners, the action threshold is linked to economic losses. As home gardeners, we can establish our own threshold based on our tolerance for weeds and understanding of how the garden ecosystem will be impacted by our actions. Without a doubt, it is prudent to control weeds before they can spread their seeds, become overly difficult to remove, or compete with the fruits and vegetables we are growing.

WEED OF THE MONTH

CANADA THISTLE

Cirsium arvense Provincial Designation Noxious



Canada Thistle is a member of the Asteraceae (Sunflower) family and was introduced from northern Europe. It is now found across most of Alberta, commonly in overgrazed pastures, roadside ditches and riparian areas.

CONCERN Competes with, and displaces native vegetation and reduces agricultural production.

SIMILAR SPECIES Plumeless Thistle, marsh thistle and other native thistles.

LIFE CYCLE Creeping perennial

CONTROL Herbicide (using fall rosette treatment), early season grazing.

IDENTIFICATION

FLOWER Purple, pink or white with

diameter of 1.5 - 2cm, clusters form at branch ends, bracts have weak prickles (no spines), male and female flowers occur on separate plants, sweet smelling when in bloom.

LEAVES Alternately arranged on the stem, wavy edge, lobed, lance shaped, spine-tipped, lack stalks, upper leaves smaller than lower leaves.

STEMS 30-120cm tall, sometimes spiny, erect, ridged, branched, slightly hairy.

ROOT Horizontal and vertical creeping roots, white, may be very deep.

SEED/FRUIT Long, flattened seeds with tufts of white hairs, low germination rate.

Source: Wheatland County. (2017). Identification Guide for Alberta Invasive Plants. https://www.edmonton.ca/public-files/assets/document?path=pdf/weed_identification_book.pdf



HARVEST TIPS



Improve the quality and storability of fruits and vegetables by keeping these harvest tips in mind:

- **Beat the Heat:** Most fruit/vegetables store best when they are cooled immediately post-harvest, so the less warm they are during harvest, the sooner they can reach storage temperatures. Harvest in the morning, before heat can accumulate.
- **Avoid Damage:** Use clean sharp tools (pruners, paring knife, kitchen shears) for harvesting leaves and fruit. Avoid pulling or breaking crops from the plant. This can damage their flesh and the plant, and shorten shelf life. Keep stems intact by cutting just above the stem for beans, tomatoes, peppers, strawberries, etc. Head lettuce can be cut just above the surface of the soil.
- **Keep it Cool:** Get harvested crops out of direct sun and cool them to their specified storage temperature as soon as possible. USask has a great page on cold storage: <https://gardening.usask.ca/gardening-advice/gardenline-nested-pages/preservation/cold-storage-main.php>
- **Sort for Storage:** For long-term storage, select only undamaged, disease-free fruit/vegetables. One bad apple can, in fact, ruin the bunch, and should be consumed shortly after harvest. It is best to store fruits that produce ethylene (apples, pears, tomatoes) away from other crops that are sensitive to this gas (squash, onion, grapes).
- **Curing:** Some crops (onions, garlic, potatoes, winter squash) store best after curing. This involves keeping them at a specific temperature and humidity level to dry and fortify the outer layer to protect vegetables during storage. For potatoes, this can heal small cuts to prevent rot and disease. In onions and garlic, the outer layers become dry and papery. USask has another great resource on harvest best-practices: <https://gardening.usask.ca/articles-and-lists/articles-how-to/harvesting-vegetables.php>

EVENTS

**GRASSLANDS NATURALISTS
NATURE WALKS**
EVERY WEDNESDAY AUGUST, 9AM
CONTACT NATURE CENTRE FOR INFO

POP-UP POLLINATORS
AUGUST 8, 10AM - 2PM
NATURE CENTRE @ POLICE POINT

**SEAWA SUMMER
RIPARIAN TOUR**
AUGUST 12, 8:30AM - 12PM
NEAR SEVEN PERSONS

BEGINNER WILDFLOWER WALKS
C/O NATURE CENTRE, 10AM - 2PM
AUGUST 16 @ KIN COULEE
AUGUST 25 @ MCCOY HIGH

A BUGS LIFE MOVIE SCREENING
AUG 19, 2PM
MEDICINE HAT PUBLIC LIBRARY



HEAT DAMAGE IN THE GARDEN



POLLEN DAMAGE



Temperatures above 32 C (day) and 21 C (night) can "cook" pollen in tomato, pepper, and bean flowers, rendering it sterile. This affects pollination, decreasing the amount and uniformity of fruit produced.

SUNSCALD + DISCOLORATION

Direct sun, wind and heat cause roots to struggle to supply enough water for leaves and developing fruit. The side facing the sun may become discolored and dry out (but the rest of the fruit is still edible!).



FLAVOR FLAWS

Respiration increases and photosynthesis decreases in high temperatures. Rather than storing extra sugar in fruits/roots, it is being consumed keeping the plant alive. This can mean melons and carrots that are less sweet and bitter cabbage.



FUNKY FRUIT

Higher temperatures favor the production of male flowers on squash, melons, and cucumbers. Female flowers develop into fruit once pollinated. Flowers close more quickly in high heat, shrinking the window of opportunity for pollination. Incomplete pollination can result in malformed fruit.



TATER TROUBLE

When soil temperature exceeds 30 C, potato plants stop producing tubers (potatoes). The ideal temperature for potato development is 20 C. As the soils heat up beyond this, fewer potatoes develop, reducing the harvest.





GROWING GARDENERS EDUCATION PROGRAM

Did you know that there is a free weekly garden club in Medicine Hat? Starting in May, join us in the community garden behind the Root Cellar (440 Maple Ave SE) every Wednesday at 7pm for **Growing Gardeners Education Program**. Each session covers a different garden-related topic while incorporating hands-on garden learning. Registration is not required and children are welcome so long as they are accompanied by an adult guardian. Watch our social media pages to get updates about topics and information about what to bring (when needed). As we meet outside, adverse weather may force us to cancel or move sessions around. For more information, follow us on social media or email CFCAGarden@gmail.com.

AUGUST GARDEN CLUB TOPICS

AUG 2 COMPOST	Types of compost systems (tumblers, bins, piles, etc). How to build, maintain and use compost. Vermicomposting.
AUG 9 PRESERVING THE GARDEN	Canning, freezing, drying, and fermenting the harvest. Canning equipment exchange
AUG 16 IRRIGATION	How to get water where it's needed and keep it there. Pros and cons of various Irrigation options.
AUG 23 SEED SAVING	Types of seeds + timing collection. Techniques for collecting, preparing and storing seeds. Tools and tips.
AUG 30 IRRIGATION	Cutting, layering and grafting. Herbaceous vs woody cuttings. Useful propagation tools.

POP-UP POLLINATORS

POLLINATOR PLANTERS

JOIN US AUGUST 8TH, 10AM-2PM

Want to start a pollinator garden but don't have any yard space? We'll have a tent out at the Police Point Park river lookout west of the Nature Centre, where you can stop by and learn about native pollinators while creating a beautiful planter full of native and non-invasive wildflowers!

Suggested Donation: \$5

MH INTERPRETIVE PROGRAM
Managed by the Society of Grasslands Naturalists

ABOUT COMMUNITY FOOD CONNECTIONS ASSOCIATION (CFCA)

Community Food Connections Association is a non-profit organization based in Medicine Hat, Alberta. Launched in 2003, we have been working to support food security in the community through education, programming, partnerships and policy support for improvements in food, nutrition, health and local agriculture.

Our programs include the Good Food Club, Community Kitchens, the Local Food & Producers Directory, Medicine Hat Community Gardens, and Growing Gardeners Weekly Garden Club. To find out more, head over to our website, FoodConnections.ca, or social media accounts:



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