

# Healthy Acres

A RESOURCE TO PROMOTE HEALTHY LANDS AND HEALTHY COMMUNITIES



## Fragrant Waterlily, a “Pretty” Nuisance

If you spent any time over the last few years recreating on one of the many lakes in the Seeley-Swan, you have probably noticed the large, white, fragrant flowers and lily pads floating along the shore. You might have even felt a little guilty about picking one! If you did, don't feel too bad, because despite its beauty, this species is actually an introduced invasive, and may soon be listed as a noxious weed in Missoula County too.

Fragrant Water Lily (*Nymphaea odorata*) is native to the eastern and southern portions of the United States, and has expanded westerly due to its attractive use as an aquatic ornamental. Its vibrant appeal as an ornamental is to blame for its introduction to Salmon Lake, with collection records going back to 1937, as well as the subsequent rap-

id expansion of the species within Missoula County's lakes and rivers. Fragrant water lily is a perennial that can be easily identified by its heart-shaped leaves, fragrant flowers, and at least 17 white-colored petals. Large, dense mono-cultures of fragrant water lily have the ability to choke-out and impede water flow in both lakes and slow-moving river systems like the Clearwater. The dense vegetation can also foul boat hulls and motors, and have even been attributed with the death of two swimmers within the state of Washington.

This spring, the Flathead National Forest petitioned the Missoula County Weed District to list fragrant water lily as a noxious weed. In response, weed district staff, with the assistance of funding from the Department of Natural Resources and Conservation, developed a

### Page 3

#### Grow It, Preserve It, & Eat It

No one should claim to know everything there is to know about food preservation! Research and experience, however, can make us all more proficient with the task.

### Page 5

#### Map Noxious Weeds on your Phone

Learn about the new phone app the Weed District is using to map weeds that is available to landowners.

### Page 6

#### Missoula County 4-H Adapts

Western Montana “Covid Fair” a success for 4-H and FFA despite closure to the public.

# A “Pretty” Nuisance *continued*

4-tier approach to determine 1) the full scope of the fragrant water lily population, 2) the presence of other, native lily species present in Missoula County, 3) best potential management options and 4) monitoring and water sampling



**Sepals**  
 <3 cm long in *N. ariflorum*  
 >3 cm long in *N. odorata*

**Petals**  
 5-7 petals in *N. ariflorum*  
 >17 petals in *N. odorata*

of the impacts of those treatments.

So far, weed district staff have completed the first two objectives, and are in the process of evaluating the third and fourth. Results from our mapping efforts included finding significant populations of fragrant water lily on 8 of the 19 water bodies surveyed in the Clearwater and Swan drainages within Missoula County.



Those included Holland, Inez, Seeley, Placid, Salmon, Black, Elbow and Blanchard Lakes. It also included any slow-moving water on the Clearwater River between Salmon Lake and HWY 200. Native lilies were found and mapped on almost all waterbodies, and the protection of those native populations will be incorporated

into any future management decisions. Three lakes (Blanchard, Black and Salmon) had large enough populations to accommodate treatment trials. Applications were made of the 3 most common herbicides recommended by the Army Corps of Engineers, and were applied in late August of this summer.

Monitoring and sampling efforts are currently an ongoing process within each of the three lakes. Monitoring efforts evaluate the percent coverage of fragrant water lily after the herbicide has been applied to its respective subplot. Weed District staff plan to evaluate this coverage at three different timeframes; pre-treatment, and two post-treatment observation. Pre-treatment observations indicate that current cover class was 100% for each plot. The post-treatment observations will take place exactly one month and one year after the initial application.

To monitor the quality of the aquatic habitat where the applications took place, Weed District Staff, in collaboration with the US Forest Service, will utilize a multitude of scientific tools to sample for the presence/persistence of herbicides within the water column. These samples will be acquired both above and below the thermocline (steep temperature gradient) of each lake, as well as in the central portions of the treatment plots. Two additional samples will be taken upstream of the three lakes to provide a basic foundation as to if herbicide are currently present within the transitional riverine system. Additional quantitative data (temperature, pH, dissolved O2, etc.) will be measured and observed at each sampling interval.

All of this information will help us make a decision on whether to list fragrant water lily as a noxious weed, but we would like to hear from you as well! If you are interested in sharing your thoughts on this species, please reach out to the weed district. We will be happy to take your comments as well as notify you of any future decisions on the management of this species.

Chris Mascari [chris@missoulaeduplace.org](mailto:chris@missoulaeduplace.org)  
 406-258-4218

Bryce Christiaens [bryce@missoulaeduplace.org](mailto:bryce@missoulaeduplace.org)

# Growing It, Preserving It, & Eating It

Kelly Moore - Missoula County/ MSU Family & Consumer Science Agent

If you find yourself daydreaming about another time—a simpler time, like last September—when life seemed more predictable and carefree—where bushels of tomatoes and rows of green beans were canned with most precision—then stored on open shelves. Perhaps that vision alone restores some peace of mind. COVID-19, we all agree, has challenged and changed our daily routines. When supplies were limited in March and April, panic became our strongest driver in the grocery store. Now that items have been restocked and home gardens, farmer’s markets, and CSA’s have provided us with ample produce—many of us are ready to preserve the bounty that will help provide some comfort and sustenance for the months ahead.

Whether you are a canning fanatic, or just entering the rewarding world of food preservation for the first time, you will need good, safe equipment and research-based instructions to adequately complete the job officially making you a “food preservation hero” among family



and friends. Research the method of food preservation that best maintains the flavor and nutrition of the item you are preserving. The National Center for Home Food Preservation: <https://nchfp.uga.edu> is an excellent research-based resource for all things canning. Extension sites such as [www.msuextension.org](http://www.msuextension.org) and <https://extension.oregonstate.edu/food/preservation> also provide great information on other food preservation methods such as freezing,



2020 has been a challenging year for all of us. Like many organizations, once we settled into working remotely and keeping our families safe we considered new ways to continue to meet our mission to support the work of the Missoula County Weed District & Extension. Utilizing new technology and with the commitment of our board and volunteers we have continued to share the message of the critical work being done by MCWDE. Sharing the plans and progress for a new facility to be located on the Fairgrounds has been the prominent role of the Foundation. We are excited to be an integral part of moving this project forward with our partners, the Missoula Butterfly House and Insectarium. We invite you to visit our website, [healthyacres.org](http://healthyacres.org) and follow the progress of the Rocky Mountain Gardens & Exploration Center.

Being an educational resource for those interested in producing locally grown foods has always

been a priority of the Extension Service in Missoula. We have certainly seen an increased interest this year.

Our new facility location will provide 2.5 acres for educational gardens and a greenhouse. We look forward to expanding our youth and adult educational programs with additional conference room, classroom and outdoor classroom space.

The HAHCF Foundation is here to support the services provided to our community by the MCWDE. Please visit our website, [healthyacres.org](http://healthyacres.org), to learn more about your favorite programs and services. For questions or more information on how you can support ongoing educational programs and opportunities call Jean Jenkins 406-258-4221 or Jerry Marks 406-258-4204.

The work of our volunteer leadership is the driving force to ensure growth. Currently the HAHCF board consists of seven community volunteers: Bill Caras, George Hirschenberger, Philip Ramsey, Ryan Rubie, Kari Brittain, Ken Stolz and Bev Gutman. We continue to expand the board as we increase the work of the Foundation. Other volunteers involved in our project development include John Rimel, Doug Emlen, Shawn Clouse, Larry Gianchetta, Dale Woolhiser and Marcy Allen. Their commitment is invaluable.

## Preparing your Garden for Winter

Fall is here, and while you are probably getting ready to start decorating your garden with pumpkins and hay bales, this is also the time to think ahead - way ahead - to spring!

Every year around March, I wish I'd thought about planting my spring bulbs back in the fall. It's unfortunate that right at the time the season is at its peak color, one has to prepare for when it's at its bleakest. My mind rebels at the thought of those frosted mornings when I long for color in the landscape but to no avail. While it's an image I'd rather not call to mind right now, it is motivation to get those bulbs in the ground.

If you are like me, do yourself a favor now and order your spring blooming bulbs in preparation for planting this fall. That way, you'll have something special to look forward to this winter.



Make notes on this year's veggie garden. Depending upon where you are in the Mountain West, the harvest season may continue in full swing throughout the month. As plants fade, however, remove them from the garden and either add them to the compost pile or take them to a recycling center. Some edibles benefit from a light frost, including rutabagas, carrots, and beets. Their flavor may actually improve.

While it is fresh on your mind, make notes for next year. What varieties worked? What didn't? Did I like the flavor of the new tomato? You can refer to these notes when the seed catalogs arrive in winter.

Use raked, mulched (shredded) leaves as a top dressing for perennial borders and vegetable gardens. Don't be too tidy about cleanup. Those leaf piles provide winter habitat for some of our most important pollinators.

Install lightweight paper tree-trunk wraps or white latex paint, around new trees, such as fruit trees and others planted on the south and west sides of your property. This protects them from dry, cold winters and sudden warm days, which could cause them to split.

Deep soaking your deciduous trees after a hard frost and leaf drop, conifers trees should be deep soaked before the ground freezes (November-December).

### Do Not Prune Plants Until They Have Gone Dormant!

Plants are dormant when their leaves change color and more than 75% of them have dropped. You can prune evergreens when deciduous plants lose their leaves.

Protect leafy evergreen (Rhododendrons and Oregon grape) plants and roses (esp. climbing roses) from winter wind and bright sunlight-with shading, or spray anti-transpirants such as Wiltpruf.

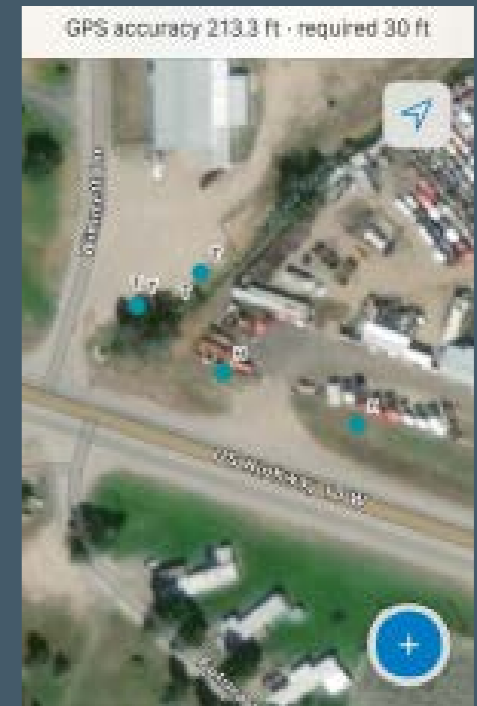
Consider leaving a variety of seed heads and seedpods in your garden for fall and winter interest. Black-eyed Susan (*Rudbeckia* spp.), Alliums, Echinacea, seed heads look terrific in floral arrangements too.

If you didn't aerate your turf in the spring, now is an excellent time to do so. You can top-dress with a fine layer (less than an inch) of organic compost and/or apply fall fertilizer.

## Map Noxious Weeds on Your Phone!

The Missoula County Weed District has an exciting new tool for landowners to use to map the weeds on their property! This summer several landowners used ArcGIS Collector to map their noxious weeds. Collector is part of ESRI's suite of apps connected to ArcGIS Online. It allows us to create maps online that landowners and Weed District staff can then use in the field on their smart phones or tablets. Using the same basic weed mapping techniques that we have been teaching for years, Collector streamlines the citizen mapping experience as you no longer need to return our loaner GPS units to the office for data downloads and charging.

If you are interested in trying Collector, contact Jed Little at the Weed District ([mapping@missoulae-duplace.org](mailto:mapping@missoulae-duplace.org), 258-4220). There is still time to do some weed mapping this fall and we are hoping to take the lessons we learned using Collector this season to make it an even better experience for next year.



## Epic Watercraft Inspection Year at Clearwater Junction

*Continued on page 7*

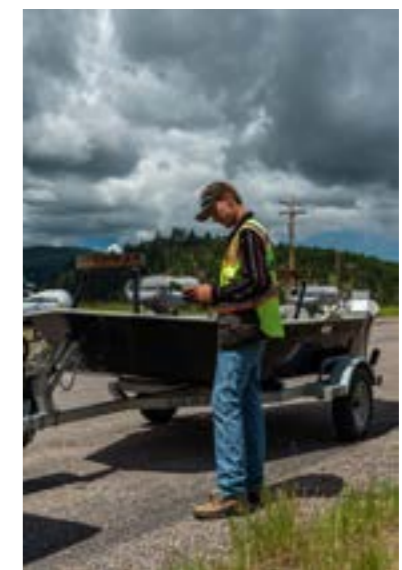
This is Missoula County Weed District's 4th season in partnership with Montana Fish Wildlife and Parks to staff and operate the Clearwater Watercraft Inspection Station. If you are unfamiliar with the Watercraft Station it is located at the intersection of Highway 200 and Highway 83. Also, affectionately referenced by saying "across from The Cow!"

In the last two summer's we have seen a dramatic increase in the number of watercraft inspections. This is due in part to increasing station operating hours and boater compliance with stopping at the station. We spent much of fall and winter of 2019-2020 gearing up for another busy watercraft inspections season, but 2020, nobody could have accounted for 2020!

The Watercraft Check Stations are a mandatory stop for all types of watercraft. This includes, but not limited to: stand up paddleboards, kayaks, canoes and all types of motorized watercraft.

At Clearwater Junction watercraft traffic must stop and be inspected coming East and West on Highway 200. Watercraft traffic does not have to stop coming south on Highway 83.

The Watercraft Check Station was deemed essential under COVID restrictions, so we adapted what seemed like almost daily to the



# Missoula County 4-H

Western Montana "Covid Fair" a success for 4-H and FFA youth despite closure to public.



As most of Missoula was forced to endure yet another Covid-cancelled community event this summer, 4-H and FFA youth and their families completed their projects, loaded their animals, donned their masks and headed to the Fairgrounds for one or more of the 14 days of Fair-related 4-H/FFA events stretching from July 18th through August 8th. Thanks to the financial support of the County Commissioners and the tireless efforts of Fairgrounds Staff, families were able to participate in an extended schedule, socially distanced series of exhibitions that started with the 4-H Dog Show on July 18th, and ended with the Livestock Sale on August 8th.

Each morning, Fairgrounds staff took their place at the Health Screening Station just inside the "YMCA Gate" off Russell, checking volunteer temperatures, handing out colored wrist bands and directing families to various parking and "family pod" holding areas. Exhibitors and volunteers were "masked up" throughout their participation in events such as Interview Day, Set-up Day, Sheep Show Day, Rabbit & Poultry Day, Beef Show Day, etc. As MCAT staff made videos of the shows for later airing on community access TV and YouTube (<https://www.youtube.com/user/mcatchannel7>), Fairgrounds staff admirably served as "Social Distance Police," reminding everyone to wear their masks and not gather in groups. It was a necessary evil; the price paid for being able to compete in-person this summer, and not be forced on to the Internet for "virtual" shows that so many youth across America had to endure this summer.

As MCAT was documenting all the animal-related 4-H and FFA competitions, 4-H vol-

unteers were busy organizing and photographing the non-animal "still" exhibits for display online through slideshows available on the Fairgrounds's website (<https://missoulafairgrounds.com/>). In all, nearly 300 youth exhibitors had the chance to compete against their peers, have their project items and animals evaluated by judges in-person, and for the market animal exhibitors, they were able to sell those animals at a live auction on the final day of the Fair.

On August 8th, business owners and other potential buyers came through that same Health Screening Station, they wore their masks, brought their own chairs, and set up on one of the 300 "spots" mapped out inside the Glacier Ice Rink for our first ever socially distanced 4-H/FFA Livestock Auction. The 194 animals sold between 8am and 12:30pm that day brought record prices, with our highest ever "average price per animal." More than \$436,000 was spent on steers, lambs, hogs and even a few poultry layer and meat pens. Youth will use the money



to cover feed and equipment costs, re-invest in animals for next year and in many cases, save money for college.

All things considered; the 2020 Western Montana Fair was a big success for everyone involved. We thank the Missoula County Commissioners, the Missoula Fairgrounds staff, volunteers, parents, youth exhibitors and Missoula business community for all their efforts to make this new and different, and hopefully never to be repeated "Covid Fair" a success!

# Watercraft Inspection Station *continued*



recommendations and guidance for operating during a global pandemic. Hiring and training staff this year presented a unique challenge. Dealing with the required Zoom interviews, 14 day travel quarantines, social distancing, developing safety protocols and measures on the fly. Possibly a silver lining to the pandemic was our applicant pool was phenomenal this year. The virus kept some college kids close to home, and disrupted some folks summer travel plans which was a score for us at the station!

With stay at home orders in place and many businesses closed, people took to the outdoors in greater numbers than even Montana is used to seeing. It was obvious almost immediately that this wasn't going to be a normal summer. Throughout the summer we have taken special precautions to keep both our staff and the public safe during the pandemic. This includes our staff wearing masks during the interview and inspection process. We have also eliminated the handing out of paperwork unless absolutely necessary. At our station we have reconfigured the traffic lanes to help the inspectors and boaters maintain social distancing. Our staff performs self-health checks everyday and we have ample sanitation materials.

We just finished our last big weekend (Labor Day weekend) at the Watercraft Inspection Station and the total number of inspections so far

this season has surpassed the total for the whole 2019 season. We have about a month left of boat inspections at Clearwater. The total watercraft inspected to date in 2020 is 31,263. We broke our own record on July 3 with the most inspections performed in one day at 626 watercraft inspected.

We have been lucky to not have found any zebra/quagga mussels on any of the watercraft we have inspected this year. We have found plenty of standing water, vegetation, one incidence of live fish and a commercially hauled vessel with a sea mussel attached. Inspectors also found faucet snails on a kayak coming out of Lake Upsata. Faucet snails are problematic because they carry a pathogen that is toxic to waterfowl.

2020 is one for the record books in many ways. We are grateful that at the Clearwater Watercraft Station we have been able to continue to protect Montana's waters from Invasive Species during the pandemic. Photo Credit: MT Trout Unlimited



**CLEAN. DRAIN. DRY.**

# Growing It, Preserving It, Eating It!

*Continued from page 3*

drying, and fermenting. It's recommended that you don't take chances on canning recipes that have been handed down through your family or a friend's, unless you know beyond the shadow of a doubt, that adequate food safety practices were followed and listed processing times are correct for your altitude. Low acid foods (exceptions-acidified tomatoes and pickled products) vegetables and meats, must be pressure-canned while high acid foods like fruit (including those on the border-line needing the addition of bottled lemon juice or 5 % acidity vinegar- tomatoes) can be safely water bath canned. If you



are lucky enough to have an abundance of tomatoes this season and you are looking for a research-based salsa recipe, Oregon State University has an excellent salsa making guide -PNW395 Salsa <https://extension.oregonstate.edu/food/preservation>

as does New Mexico State University -Guide E-323 Salsa Recipes For Canning.

If you haven't had your pressure canner gauge tested yet, now is the time to call me at the Missoula County Extension Office (258-4206) to make an appointment. Pressure canner gauges should be tested annually for accuracy and safe food processing. It's much better to find out that your pressure gauge needs to be replaced now before you begin canning. A pressure gauge that does not hold steady at 12-15 pounds of pressure during required processing time will not result in a safe product to consume. Peace of mind is priceless!

There have been reports of canning supply shortages in some areas of the country. Lids for wide mouth canning and pint jars, especially. Remember canning jars and metal lids can be re-used, however, lid liners can not be. The sealing compound only provides an adequate seal for one-time canning use. Recommendations also call for use of glass jars designed specifically for canning. If you are interested in learning more about other food preservation options such as freezing, drying, or fermenting consult your Extension Office or website for instructions.

No one should claim to know everything there is to know about food preservation! Research and experience, however, can make us all more proficient with the task. It is the desire to feed ourselves and our families well and the pride that comes from having grown, harvested, and preserved our own food, that is the driving force.

While our office hours will currently continue to be 9 -5 for the Fall, that may be subject to change depending on recommendations from Missoula Public Health. It is always a good idea to call ahead to make sure staff that you wish to talk to are there to help you. Please be sure to remember your mask, as they are required in all public buildings in Missoula County. Thanks for your patience! And we look forward to helping you. 406-258-4200

