Cornell University
Cooperative Extension
of Westchester County

3 West Main Street
Elmsford, NY 10523
Tel: 914-285-4640 / Fax: 914-285-4624
E-mail: westchester@cornell.edu
Web: www.cce.cornell.edu/westchester

The Truth about No Mow May

In 2019, a British plant conservation charity called Plantlife started a citizen science project called "Every Flower Counts". They encouraged homeowners in the UK to stop mowing their lawn for the entire month of May, then count wild flower populations in randomized square meters of the yard. Their goal was to "calculate the nectar score" of blooming flowers across traditional turf lawns and demonstrate how many honeybees could be supported by protecting lawn flowers. From this citizen science program came the name "No Mow May".

Photo from plantlife.co.uk

Citizens of Appleton, Wisconsin, learned of this project and decided to take on the same mission. Homeowners at nearly 500 properties refrained from mowing their yards for all of May. A paper called *"No Mow May lawns have higher pollinator richness and abundances: An engaged community provides floral resources for pollinators"* was published in 2020 with results from the movement in this midsized city (Del Toro and Ribbons 2020). Both the UK movement and the Appleton study boasted pollinator benefits directly tied to the lack of lawn mowing.

Seems great, right?

Here's What We Know:

"No Mow May" started as a citizen science project, meaning it was not yet a proven plant or environmental management technique. This gardening trend spread in the United States with little to no aspect of experimentation or data collection.

The "Every Flower Counts" experiment did not include control data, or flower counts from mowed lawns. That control data would allow for a direct comparison of mowing effects on lawn flower growth. The program also measured success through a "nectar score" calculated from participants' flower counts. Nectar content in flowers is difficult to identify, as nectar levels change based on rain, pollinator presence, and environmental temperatures. Moreover, a paper published in the U.K. in 2022 found that the average nectar sugar value in a no-mow patch only barely surpassed the mown patch in the last week of May. The nectar sugar value did increase significantly in the no-mow patch, but only after suspending mowing fully until July (Hemmings, Elton, & Grange 2022). Between the lack of a control group and data that is hard to quantify, the conclusions of this project may not be scientific, unbiased, or conclusive.

The 2020 published paper was retracted in 2022 due to data handling problems. University of Minnesota Bee Lab bee taxonomist Zach Portman published a full critique here. Portman noted that the paper included incorrectly spelled Latin names and repeated bee species in single data sets. He pointed out that multiple species listed simply do not exist in Wisconsin in May. Despite the paper's retraction, the No Mow May movement gained popularity and was adopted by many municipal governments, including Appleton, where the author of the paper sits on the city council.

Truths About Implementing No Mow May in the US:

- Mowing lawns at a 4-week interval, as recommended by No Mow May, was found to have a lower pollinator population than 2- and 3-week mowing intervals (Lerman et al 2018).
- During May, grass can grow to 12 to 18 inches high without mowing (University of Minnesota Bee Lab) which may be unmanageable, or so tall that small flowering plants are smothered.
- The extreme mow after May would remove more than 1/3rd of grass tissue in a single event, which goes against basic grass mowing recommendations, as it may cause plant shock and death.
- Trimming 18-inch grass may be impossible for the average lawnmower.
- An extreme mow could create thick enough clippings to fully smother the lawn and other growing plants.
- Disruption of thick grass cover creates open spaces where invasive and weedy plants can seed and root.
- Lawn phosphorous runoff increases as lawn maintenance decreases (Bierman et al 2010).

Different Environments:

- Much of the U.K. falls in zones 8b and 9a, while Westchester County is in zones 6b, 7a, and 7b.
- Our last frost date in Westchester county is typically in mid-April, while much of the United Kingdom experience their last frost in early to mid-March. While winters, frost dates, and environments are changing, the difference is still significant.
- The original study worked off a list of 26 common flowering plants of the UK. 19 of those flowers are on at least one state invasive list in the United States, with 7 listed as invasive in Wisconsin, specifically. None of the 26 are native to the United States.
- Honeybees, the targeted beneficiary of the original experiment, are not native to the US. Other native pollinators may be more abundant and benefit from different environmental management.

A Note About American Lawn Weeds: Many common lawn weeds in the United States, like broadleaf plantains, creeping charlie, and Japanese Stiltgrass, are aggressive non-native species. Dandelions, a classic flowering lawn weed, have been found to be low in nutrients for honeybees (Loper and Cohen 1987). Pausing or stopping the proper care of a turfgrass lawn creates opportunities for invasive, non-native, or generally non-ideal plants to move in. No garden space is really maintenance-free, although there may be *lower* maintenance options for your yard.

Creeping Charlie (Glechoma hederacea), photo by Betty Marose, University of Maryland Extension

So, What Can Be Done?

More research is being done on this topic, but no slogan has caught on like "No Mow May". New mottos are emerging around the country like "Slow Mow" or "No Mow April" to better address local environments and growing seasons. Cornell's Turfgrass Program uses the phrase "Mow High May, June, and July" to encourage

homeowners to keep grass levels higher to balance turf health and ecosystem services. Regardless of name, there are many options to support lawn health, pollinator health, and species biodiversity in the yard.

For the healthiest lawn, mow is every 10 to 14 days, maintaining a size of approximately 3 to 4 inches, never removing more than 1/3rd of the grass tissue per mow. This ensures grass will not go into shock and encourages grass to grow longer, stronger roots. Test lawn soil to ensure soil amendments and fertilizers are only added when needed, and practice Integrated Pest Management to reduce or even eliminate chemical application on the lawn. To learn more about the importance of grass lawn spaces, see our fact sheet "Benefits of Lawns".

To increase pollinator support or biodiversity in the yard, some homeowners choose to remove and replace turf grass. Turf may be replaced by a meadow, pollinator gardens, rock or moss gardens, or increased patio space. Find other lawn alternative ideas here. Consider transforming small parts of the lawn into garden space, adding standalone containers of flowers, or seeding a bee lawn mix. The University of Minnesota's Bee Lab program has developed substantial resources and lawn seed mixes that support both pollinators and foot traffic. An exceptionally thorough manual on bee lawns by University of Minnesota's Bee Lab can be found here. Be sure to carefully consider the environmental needs and maintenance requirements of any lawn alternative to ensure success.

EMBEDDED LINKS: -Del Toro & Ribbons 2020 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7518183/
-Hemmings, Elton, & Grange 2022 https://besjournals.onlinelibrary.wiley.com/doi/full/10.1002/2688-8319.12179
-Zach Portman "Documenting serious issues in a bee paper on 'No Mow May'" https://zportman.medium.com/documenting-serious-issues-in-a-bee-paper-on-no-mow-may-dd9b563feac0
-Lerman et al 2018 https://doi.org/10.1016/j.biocon.2018.01.025
-University of Minnesota Bee Lab "What not mowing in May could mean for your lawn" https://extension.umn.edu/yard-and-garden-news/what-not-mowing-may-could-mean-your-lawn
-Bierman et al 2010 https://acsess.onlinelibrary.wiley.com/doi/epdf/10.2134/jeq2008.0505?saml_referrer
-Loper & Cohen 1987 https://academic.oup.com/jee/article-abstract/80/1/14/757976
- "Lawn Alternatives" University of Maryland Extension https://extension.umd.edu/resource/lawn-alternatives/
- "Flowering Bee Lawns Toolkit" University of Minnesota Bee Lab
https://drive.google.com/file/d/1Z0gYscfX5UfrwgLpxlfeTEDfMFeBUSAI/view?pli=1

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Original Experiment Resources from https://www.plantlife.org.uk/ are no longer available on the charity's website; all primary sources from 2019, 2020, and 2021 were accessed through https://web.archive.org.

PREPARED BY: Kathleen Strahan, Horticulture Educator, Cornell Cooperative Extension Westchester County, 03/2024