

Montgomery Soil Conservation District MASCD Endowment Grant Report Award Year 2020

The Montgomery Soil Conservation District was awarded one of the first MASCD Educational Endowment Grants in 2020. Our grant application was intended to be used to support our local Envirothon Program and Equestrian Education Outreach efforts. The District received a grant award of \$1,500. Due to COVID-19, nearly every educational program was suspended for 2020 into 2021. MASCD granted the District additional time to utilize this grant funding once conditions surrounding COVID-19 improved allowing the District to move forward with educational outreach programs.

During the extended grant period, the District utilized MASCD Grant funding for two educational outreach efforts. The first being our local Envirothon Program and the second being an Equestrian Education Study on Nutrient Content of both raw and composted manures.

Envirothon Program

The Montgomery Soil Conservation District hosted its first in person Envirothon Competition for local high schoolers since the start of the pandemic. Each participating high school team was made up of 5 members whereby they competed by competing against other high school teams in four environmental testing disciplines and one special 5th issue testing topic. Students were tested in aquatics, forestry, soils, and wildlife as well as this year's 5th issue concerning Waste

Management. Despite overcast skies and threat of rain, teams from Montgomery Blair and Richard Montgomery battled each other for the top placing spot in this year's competition. Going into the final round, only two points separated the top teams from both schools. The fifth issue test ultimately decided this year's winner from Richard Montgomery High School. The winning team "Tree Troupe" ironically, finished in 1st place in last year's State Competition. This means our winning team will have the opportunity to defend their title in this year's State Competition that will be held in June. We are very proud of all the teams that competed in this year's competition and wish "Tree Troupe" the best of luck as they represent Montgomery County at this year's State Envirothon Competition. We are also very appreciative of MASCD's sponsorship of our Envirothon through the endowment grant. The funding supported a variety of program costs, including team tee shirts, refreshments for students and instructor volunteers, printed materials and substitute teacher costs for enabling Montgomery County Public School teachers to serve as chaperones for both our training day and



competition day. Without providing this support, teachers would have to go out of their own pocket to cover these expenses. In honesty, without teacher support, we would not have an Envirothon program and the District felt this was a reasonable accommodation to support teacher participation.

Equestrian Educational Outreach – Manure Study

The Montgomery Soil Conservation District (MSCD) would like to warmly thank the dozens of equine operations across the county that participated in the horse manure nutrient content study. Starting with the last issue of this newsletter and continuing through February, MSCD reached out to a broad swath of the Montgomery County Equine community, including licensed stables, breeding facilities, educational institutions, and private stables. With gracious sponsorship by MASCD through the endowment grant, we were able to report back to our equine participants on the results of the analysis. The results will help our Equine operations better understand nutrient content and how to better manage these nutrients on their lands.



District Equine Conservationist Travis Gorleski taking samples from a local farm.

Below are some key pieces of information have already been drawn from a deeper analysis of the data.

- (1) Analysis found that the content of key components Nitrogen (N), Phosphate (P₂O₅) and Potash (K₂O) was roughly 30% lower than University of Maryland book values.
- (2) Compost contained 30% more Nitrogen and Potash and significantly higher amounts of micronutrients than non-composted material collected from the same farms.
- (3) The pH of all samples was consistently alkaline, averaging 8.64. This was not significantly affected by bedding type.
- (4) C:N ratio for manure without bedding was 25:1, considered ideal for microbial activity. C:N ratio for manure with sawdust was also in the acceptable range, at 28:1, while manure with shavings was on average 32:1, outside the suitable range for composting.
- (5) The nutrient content of Nitrogen (N), Phosphate (P₂O₅) and Potash (K₂O) was consistent, whereas the micronutrient content was highly variable and not significantly affected by the feeding of supplements.

The study confirmed much of the existing information about horse manure and bedding, and further emphasizes the value of composted horse manure as a soil amendment. Since the average horse produces about 10 tons of manure and bedding each year, the study helped to inform our operations the value of these nutrients that they are paying manure haulers to take off their property each year? We used this an opportunity to let these operations understand that the District can assist Equine Operation with locating and designing an appropriately sized

composting facility and exploring cost-share to assist with its construction as well as the availability to utilize our equipment rental program to rent a manure spreader at a reduced cost. This program has expanded our reach to equestrian operations leading to new cooperators signing up for our assistance. The MASCD grant helped to sponsor direct mailing to equestrian operations as well as assistance with some of the lab analysis. The program was also funded in part by a grant from the Maryland Horse Industry Board.

Free Horse Manure Lab Analysis

Curious about the nutrient content of your horse manure or compost?

The Montgomery Soil Conservation District, together with the University of Maryland Extension, is asking **Montgomery County horse farms** to volunteer to receive a free horse manure lab analysis. This analysis will test for nutrients, acidity, and Carbon to Nitrogen ratio and investigate how these are affected by supplements and type of bedding. All you need to do to participate is submit this questionnaire before **February 25, 2022**. You will be provided a copy of your test results from the lab at no cost to you. Your information will not be shared with any third-party entities.

Are horses given supplements as part of daily feeding? (circle one) Y N

(Optional) Type of supplement: _____

Are stalls picked/screened or given a full clean-out? (circle one) Picked Screened Full clean-out



What type of bedding is used? (circle one) None Sawdust Shavings Other: _____

Address of Manure Pile: _____

Contact Email / Phone number: _____

The answers to these questions may be sent to the attached address or emailed to Travis.Gorleski@montgomerycountymd.gov

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MASCD Endowment Grant Financial Summary

Envirothon Program

Say It In Stitches (Tee Shirts)	\$ 570.28
Safeway-Envirothon	\$ 33.76
Ledo's Envirothon Staff Lunch	\$ 87.35
Ledo's Envirothon Recognition Award	\$ 40.00
Montgomery Blair High School-Envirothon	<u>\$ 225.01</u>
Sub Total	\$ 956.40

Equestrian Educational Outreach - Manure Study

Turf-Tec International -Lab Analysis	\$ 268.34
UMD Horse Travis - Mileage	\$ 30.00
MD Horse Council -	\$ 100.00
U.S.P.S. -Manure Survey	\$ 92.80
U.S.P.S. Stamps and mailer	<u>\$ 52.46</u>
Sub Total	\$ 543.60

Grand Total \$ 1,500.00