# **ENVIRONMENTAL STEWARDSHIP DIVISION**



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Biosolids are nutrient-rich organic materials resulting from the controlled treatment of sewage sludge. Because of that treatment, biosolids can be safely recycled and applied to farm fields for crop production as fertilizers. While regulated by the Michigan Department of Environment, Great Lakes, and Energy (EGLE), the Michigan Department of Agriculture and Rural Development provides education and technical assistance to farmers, locally elected officials, and other stakeholders on the use of biosolids as fertilizer for crop production.

# **IMPACT FOR MICHIGAN:**

The land application of biosolids at agronomic rates saves Michigan farmers more than \$10 million each year in fertilizer costs. It also reduces municipal sewage treatment waste disposal costs by \$7.9 million each year.

#### **2021 ACCOMPLISHMENTS:**

- 86,000 dry tons of biosolids were applied over farmland, with a fertilizer value of \$15.5 million.
- Planned and attended the 2021 Michigan Biosolids Virtual Conference.
- Conducted a demonstration plot and had a display at the 2021 Agro Expo.
- Published four Quarterly Amendments Newsletters.
- Published six Biosolids 101 information sheets.



## **MEASURING SUCCESS:**

Metric	2017	2018	2019	2020	2021
Biosolids applied (dry tons)	120,000	65,000	64,000	68,000	86,000
Biosolids application area (est. acres)	29,550	21,500	21,300	26,000	33,000
Nitrogen used as fertilizer (est. tons)	4,800	2,780	2,560	3,750	4,760
Phosphorus used as fertilizer (est. tons P <sub>2</sub> O <sub>5</sub> )	6,900	3,220	3,170	2,040	2,590
Potassium used as fertilizer (est. tons K <sub>2</sub> O)	600	282	278	200	250
Farm value as fertilizer (approx. N-P <sub>2</sub> O <sub>5-</sub> K <sub>2</sub> O)	\$15M	\$8.5M	\$6.4M	\$7.0M	\$15.5M
Biosolids Conference Participants	0*	105	155	165	112

<sup>\*</sup>No conference in 2017

## **2022 PROGRAM GOALS:**

- Provide education and information to conservation district technicians on the benefits of biosolids.
  Technicians can then provide education and targeted technical assistance to farmers and local officials in their districts.
- Participate in Michigan Water Environment Association's (MWEA) biosolids committee meetings, activities, and the biosolids conference subcommittee to plan the 2022 Michigan Biosolids Conference.
- Display Biosolids Education materials at the Michigan Townships Association Annual Conference, Agro Expo, and the Michigan Association of Conservation Districts summer and winter conferences.
- Work with AgroLiquid staff to establish and maintain a biosolids demonstration plot.
- Work with Michigan State University Extension, MWEA, EGLE, and Michigan Farm Bureau to promote the beneficial use of biosolids.
- Develop new educational materials.

## **KEY STAKEHOLDERS**

- Michigan Water Environment Association
- EGLE
- · Michigan Farm Bureau
- MSU Extension
- Michigan Townships Associations
- Conservation districts
- Local crop producers

# **LEGAL AUTHORITY:**

 Natural Resources and Environmental Protection Act, PA 451 of 1994, Part 24 Rules and Part 31, as amended

