



Compost Market in Minnesota



This document highlights the market for compost in Minnesota. AURI used publicly available information to provide market size, trends, existing opportunities. This is part of a series of market spotlights from AURI on different ag and food industries in Minnesota.

Market Spotlight

Industry Outlook

The Minnesota Composting Council (MCC) revealed that in 2021, 1.8 million cubic yards of materials were composted from 115 permitted composting facilities in Minnesota, producing 240,000 cubic yards of compost. According to the MCC, the compost industry generates and contributes \$34 million in revenue to the Minnesota economy.

Compost is a biobased fertilizer alternative that is seen as more friendly to the environment for various applications. Farmers may be interested in producing compost from their waste products as an additional revenue stream or for internal use. Compost sales in Minnesota increased from \$1.6 million in 2013 to \$4.5 million in 2021, an increase of 181%, showcasing the growth opportunities in this industry (MCC, 2021). Despite the lack of reliable data on the growth of compost production, the surge in private business revenues is a clear indicator of the industry's growth.

Not all composts are manufactured equally; most compost produced in Minnesota is from yard debris, which contains good organic matter but lacks nutrients. Compost produced from feedstocks like manure or food waste contains good organic matter and is a good source of nutrients.

Source Separated Organics (SSO) include food waste, wood waste, and paper fibers. Biosolids are products of wastewater treatment process.

Figure 1 presents a breakdown of the types of compost produced in Minnesota (MCC, 2021).

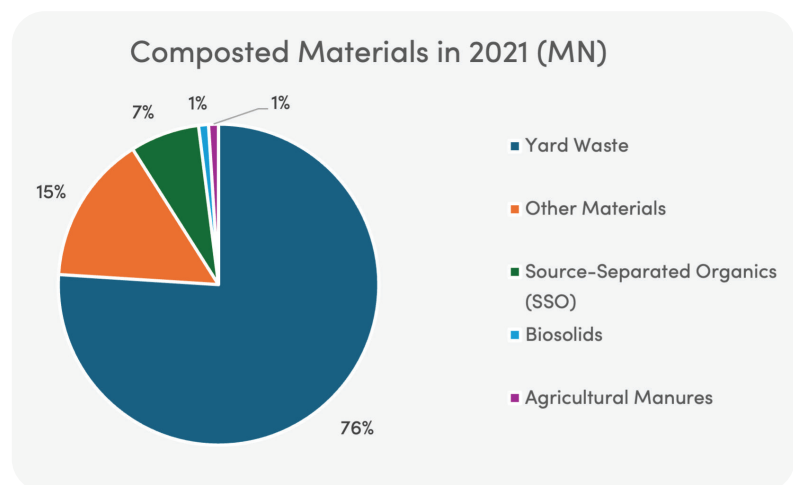


Figure 1. Composted materials in Minnesota in 2021 (Minnesota Composting Council, 2021).

Market Size and Segments

With a few exceptions, most potential compost users fall into the following market segments:

- The lawn, garden, and nursery industry, comprising golf courses, landscaping services, garden centers, and nursery firms.
- The agricultural industry, including organic farms, commercial greenhouses, and sod farms.

Another category is road construction, maintenance, and erosion control. For example, the Minnesota Department of Transportation (MNDOT) is a large compost user, with approximately 20 suppliers of grades 1 and 2 compost (MNDOT, 2024).

No reliable information is available on the compost utilization numbers of each business type, making it challenging to understand demand for compost in Minnesota. Therefore, AURI uses the number of businesses that are potential users of compost as a proxy for compost demand.

Lawn, Garden, and Nursery Industry

AURI used data from the U.S. Census Bureau and industry associations to quantify the number of businesses within each category. Additionally, a study by Walker et al. (2006) provided a categorization of the percentage of businesses that are potential compost users. The study analyzed 746 horticultural and green businesses (landscape contractors, retail, wholesale nurseries, golf courses, and sod farms) to create a marketing baseline for compost usage.

Using the Walker et al. (2006) framework, AURI found 833 potential compost users in Minnesota in 2023. Seventy-three percent of businesses in the lawn, garden, and nursery industry segment are landscapers, while the remaining (27%) consist of golf courses, nurseries and garden centers. Table 1 presents the estimated number of businesses in this segment using compost in the state.

Industry and Compost Users			
Type	Number of Businesses (MN)	Use %	Potential Users
Golf Courses	380	32%	122
Landscaping Services	2358	26%	613
Nursery, Garden Center, and Farm Supply Stores	273	36%	98
Total			833

Table 1. Estimated compost users in Minnesota from the lawn, garden, and nursery industry.

Golf Courses

The Minnesota Golf Association reported 380 golf courses in operation in the state in 2024. Walker et al. (2006) showed that 32% of golf courses are compost users, hence, 122 golf courses are potential users of compost in Minnesota. This is a limited market segment for producers. Golf courses are conservative compost users; they use compost at a low rate to amend ornamental beds and tee boxes.

Landscaping Businesses

Residential and commercial landscapers are the largest market segment for compost, representing 613 potential users in Minnesota. This market has several potential sub-segments, including design professionals, landscape contractors, and gardeners, making it a very versatile market segment for compost. Landscaping businesses serve residential and commercial markets and often buy bulk compost.

Nursery and Garden Centers

The U.S. Census Bureau identified 273 garden centers in Minnesota in 2023. The Minnesota Department of Natural Resources shows that 46% of all nursery centers are in Central Minnesota, typically in urban areas. Considering that market opportunities for a compost producer are within 50-100 miles (Rynk et al., 2021), compost producers around Central Minnesota have a better chance of entering this market. The advantage is that garden centers are willing to pay more for compost. However, they often buy compost in smaller volumes and limited quantities (Rynk et al., 2021).

Agriculture Industry

The agriculture industry consists of organic farms, greenhouses, and sod farms. The agriculture sector tends to be more of a volume market, where compost is sold in bulk but with a lower per-unit value (Rynk et al., 2021). In this section, we look at the trends in the number of farms to understand future demand. Table 2 presents the size of the agriculture segment.

Industry and Compost Users			
Type	Number of Businesses (MN)	Use %	Potential Users
Organic Farms	577	-	158
Greenhouses	527	60%	316
Sod Farms	52	31%	16
Total			490

Table 2. Estimated compost users in Minnesota from the agricultural industry.

Organic Farms

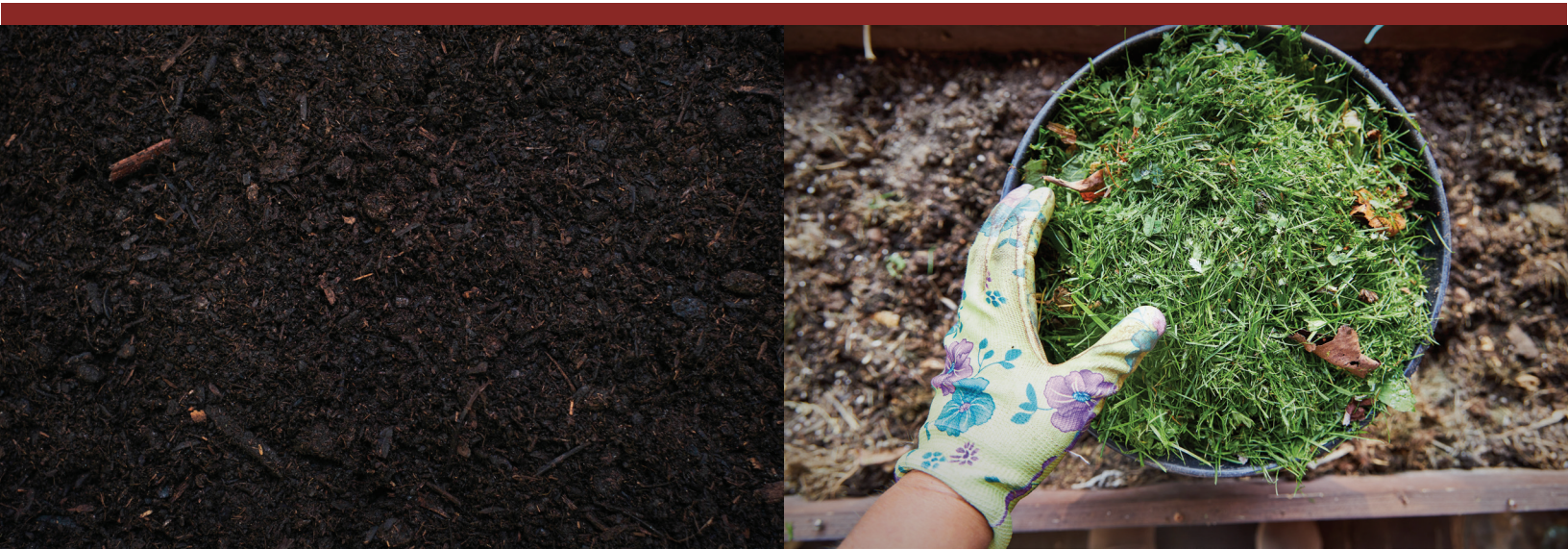
Organic farms are important buyers and manufacturers of compost. They use it to increase soil fertility and build organic matter. Organic farms also manufacture compost for internal use. A survey on organic production in Minnesota in 2021 shows that 158 organic farms use compost in the state (USDA-NASS, 2022).

Greenhouses

Greenhouses are important compost buyers/producers, they include farmers producing fruits, vegetables, and herbs in greenhouses and are important compost buyers/producers. The USDA-NASS showed 527 greenhouse farms in Minnesota in 2022 (USDA-NASS, 2024); with a 60% usage rate, 316 greenhouse farms are potential compost users.

Sod Farms

Sod farms use compost because it can increase sod health and retain the water that sod needs to create deep roots and healthy lawns. However, this segment represents a minor opportunity due to the small number of sod producers. In 2022, there were only 16 sod farms that were potential users of compost in Minnesota.



Resources

Rynk, R., Black, G., Gilbert, J., Biala, J., Bonhotal, J., Schwarz, M., & Cooperband, L. (Eds.). (2021). *The composting handbook: a how-and why manual for farm, municipal, institutional and commercial composters*. Academic Press.

Walker, P., Williams, D., & Waliczek, T. M. (2006). An analysis of the horticulture industry as a potential value-added market for compost. *Compost science & utilization*, 14(1), 23-31.

USDA-NASS (2022). Certified Organic Survey 2021 Summary. <https://downloads.usda.library.cornell.edu/usda-esmis/files/zg64tk92g/2z10z137s/bn99bh97r/cenorg22.pdf>

Takeaways

- 1 Additional market research is needed to estimate Minnesota's compost demand more precisely by considering composters' market development efforts, purchasing numbers, and business sizes.
- 2 In the business to business market, the average compost buyer in Minnesota purchases 180 cubic yards of compost per year.
- 3 Landscapers represent almost half of Minnesota's compost market.
- 4 The agriculture market is very limited for compost due to few potential users and a low forecasted growth rate based on the numbers of new organic, greenhouse, and turfgrass farms.
- 5 Compost producers in Central Minnesota have a better chance of succeeding in the nursery and garden center markets.
- 6 Success in the retail market involves understanding the complexities of the packaged product industry and the additional costs necessary for packaging and shipping.



This document is part of the Agricultural Innovation Center at the Agricultural Utilization Research Institute (AURI) to provide market business development services to agricultural producers in Minnesota. The center assists farmers with market research, marketing plans, customer identification, and market intelligence issues. The center provides direct business, products, processes, and development services.

Questions or comments?

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