

MANITOBA

Fertilizer and Pesticide Use in Manitoba

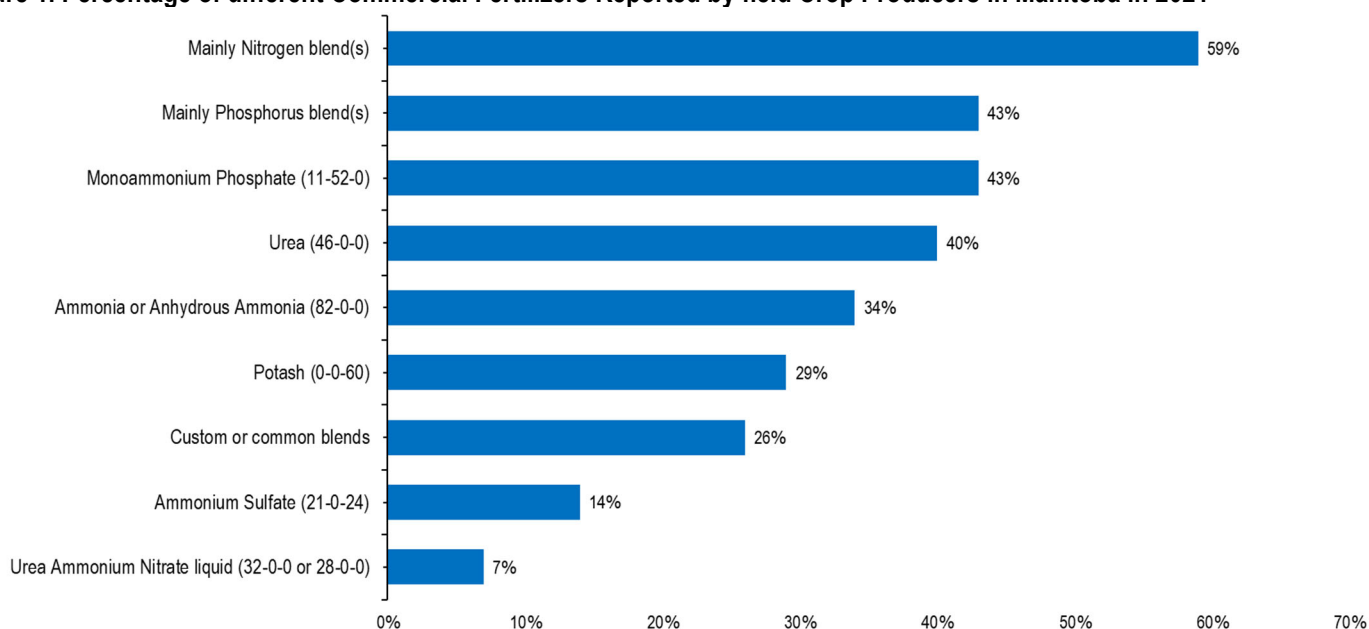


Statistics Canada, in collaboration with Agriculture and Agri-Food Canada, implement the Farm Management Survey (FMS) every five years, as a follow-up to the Census of Agriculture. The survey collects production and farm management practices data from Canadian farm operators. The most recent FMS, conducted in 2021, surveyed 18,000 crop and livestock farms across Canada that had a total agricultural sales value of \$10,000 or more.¹ This report provides insight on fertilizer and pesticides use in Manitoba.

Fewer Field Producers Using Commercial Fertilizers

About 87 per cent of field crop producers reported applying commercial fertilizer in 2021, down by 10 per cent from the 97 per cent in 2017, which could be related to the drought impacts in 2021. This is higher than the national average that reached 80 per cent in 2021. A slightly higher percentage of Manitoba farmers reported the use of slow-release fertilizers (27 per cent) compared to the national average (24 per cent). The top three fertilizer types reported in 2021 were nitrogen blend(s), phosphorus blend(s), and mono-ammonium phosphate (Figure 1). These fertilizers were also the most reported fertilizer types in 2017.

Figure 1. Percentage of different Commercial Fertilizers Reported by field Crop Producers in Manitoba in 2021



Statistics Canada, Table 32-10-0389-01

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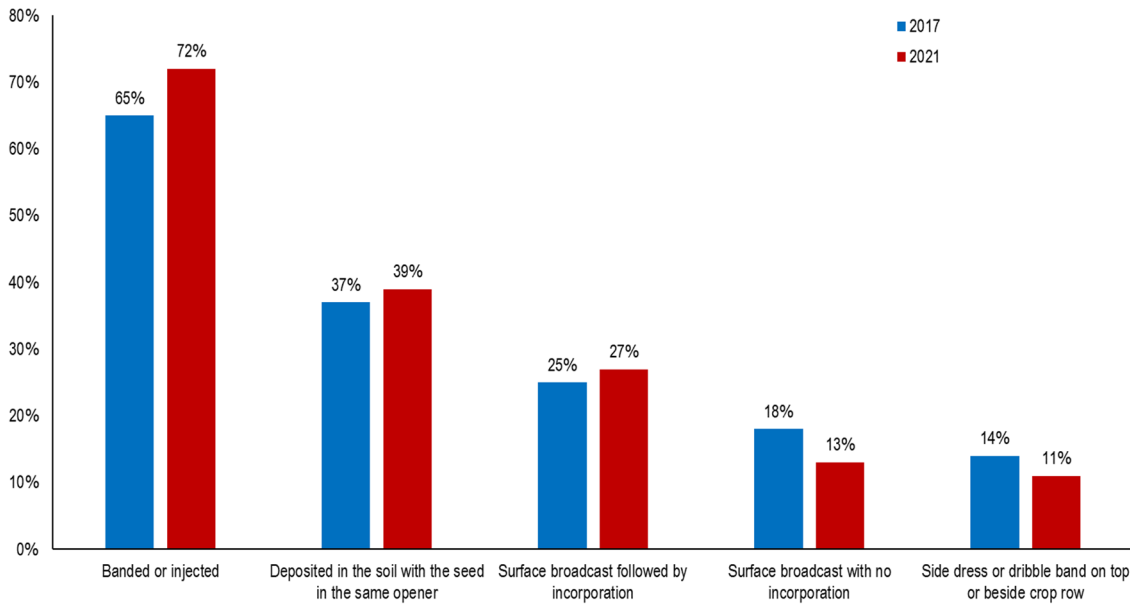
Banding or Injection: The Most Commonly Reported Fertilizer Application Method

Fertilizer application methods and timing of application are crucial in optimizing the use of commercial fertilizer and in minimizing the unintended consequences of fertilizer application on the environment. In Manitoba, most field crop producers who applied commercial fertilizer reported using a banding or injection fertilizer application method (72 per cent), while 39 per cent reported depositing fertilizer in the soil with the seed in the same opener, and 13 per cent reported surface broadcasting with no incorporation into the soil (Figure 2).

¹ For more information about the FMS, visit:

[Surveys and statistical programs - Farm Management Survey \(FMS\) \(statcan.gc.ca\)](https://www150.statcan.gc.ca/n1/pub/26-687-x/2023001/article/00001-eng.htm)

Figure 2. Percentage of Commercial Fertilizer Application Methods Reported by Field Crop Producers in Manitoba in 2017 and 2021



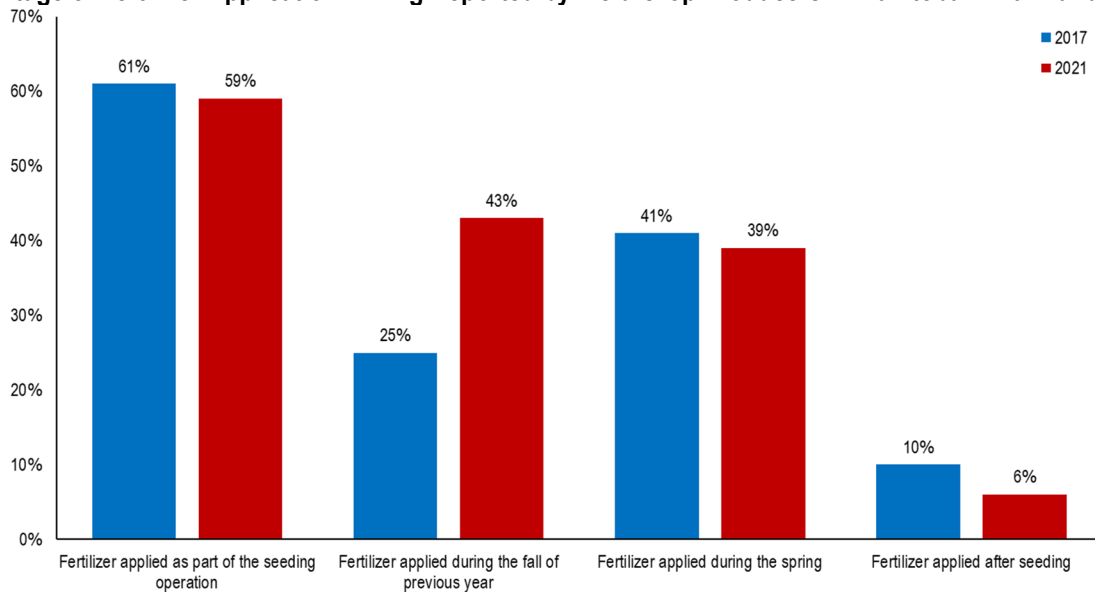
Source: Statistics Canada, Table 32-10-0391-01

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Most Field Crop Producers Apply Fertilizer as Part of Seeding Operation

Fifty-nine per cent of the field crop producers who applied commercial fertilizer in Manitoba applied it as part of the seeding operation, followed by fall application at 43 per cent, and spring application at 39 per cent. Fall fertilizer application has increased from 25 per cent in 2017 to 43 per cent in 2021. Only six per cent of field crop producers reported applying fertilizer after seeding in 2021, a decrease of four per cent from 2017.

Figure 3. Percentage of Fertilizer Application Timing Reported by Field Crop Producers in Manitoba in 2017 and 2021



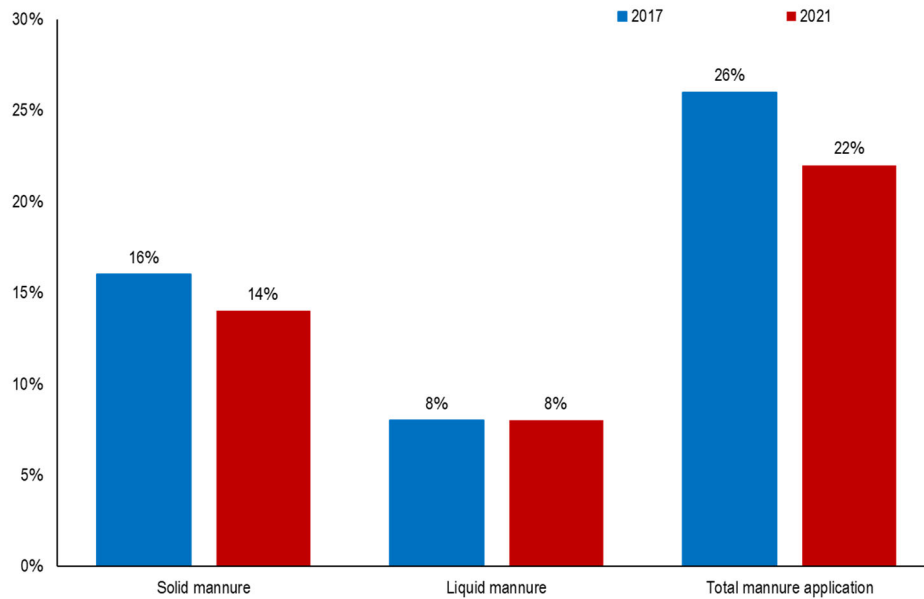
Source: Statistics Canada, Table 32-10-0390-01

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Solid Manure Application More Common in Manitoba

About 22 per cent of field crop producers reported applying manure to their fields in 202, with 14 per cent applying solid manure and the remaining eight per cent using liquid manure. The percentage of field crop producers reporting solid manure application decreased by two per cent between 2017 and 2021. There was no change in the use of liquid manure application. Of those reporting applying solid and liquid manure, 52 per cent and 58 per cent reported applying manure at least once a year, respectively.

Figure 4. Percentage of Manure Applied by Field Crop Producers in Manitoba in 2017 and 2021



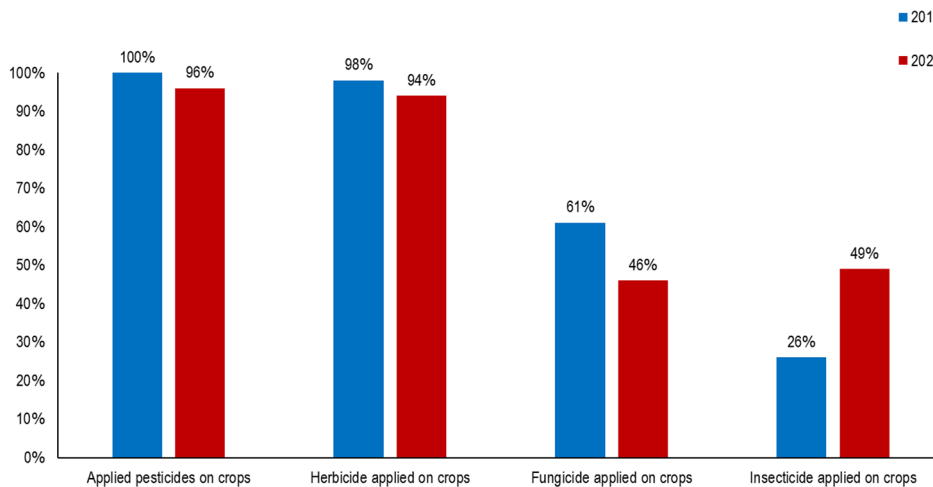
Source: Statistics Canada, Table 32-10-0388-01

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Herbicides are the Dominant Pesticides Applied by Field Crop Producers in Manitoba

Overall, fewer producers are applying pesticides on crops in Manitoba. In 2021, 96 per cent of the field crop producers reported applying pesticides, down by four per cent from 2017. Herbicides were the most common type of pesticides used in Manitoba. Ninety-four per cent of field crop producers reported the use of herbicides in 2021, a decrease of four per cent from 2017. While the number of farmers reporting fungicide application showed a 15 per cent decrease between 2017 and 2021, the number of field crop farms reporting insecticide application increased by 23 per cent during the same period. Generally, application of pesticides is influenced by the prevailing weather conditions during the crop growing season. Thus, the increase or decrease in the number of farms reporting the application of pesticides may not indicate the long-term trend in the use of these chemicals. On average, in 2021, field crop producers applied fungicides once a year, herbicides 1.5 times a year, and insecticides 1.24 times a year.

Figure 5. Percentage of Field Crop Producers Reporting Pesticides Application on Crops in Manitoba in 2017 and 2021

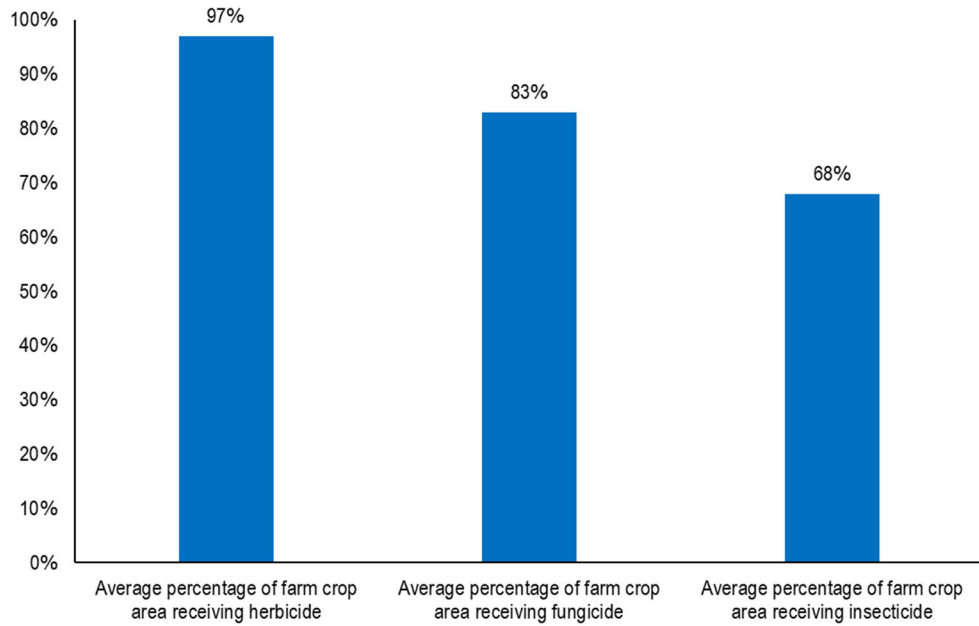


Source: Statistics Canada, Table 32-10-0209-01

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As shown in Figure 6, 97 per cent of field crop acres in Manitoba had herbicides applied in 2021. Similarly, 83 per cent and 68 per cent field crop areas received fungicides and pesticides, respectively.

Figure 6. Average Percentage of Field Crop Areas Receiving Different Types of Pesticides in Manitoba in 2021



Source: Statistics Canada, Table 32-10-0209-01

Manitoba Agriculture, Foresight and Analysis, 20213-04-21

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