# Change in South Dakota Agricultural Land, Tenure of Farm Operation, and Producer Characteristics 2012-2022

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This report uses the newly released data from the 2022 Census of Agriculture to provide an update on land in farms, the number of farms, tenure of farm operations, and producers' characteristics in South Dakota for the last ten years, from 2012 to 2022. The Census of Agriculture, conducted every five years, includes information on land use, income, characteristics of producers, production and sale activities, and other farm-related items.

## 1. South Dakota Land in Farms and Number of Farms

Table 1 shows the land in farms, the number of farms, and the average size of farms from 2012-2022. Between 2012 and 2022, South Dakota lost more than 950,000 acres of land in farms. Among these land in farm loss, 658,701 acres are cropland, and 290,239 acres are pasture. The number of farms in South Dakota decreased from 31,989 in 2012 to 28,299 in 2022, a decrease of 11.5%, while the average size of farms increased during the same period. The average size of farms increased from 1,352 acres per farm in 2012 to 1,495 acres per farm in 2022.

**Table 1.** Land in Farms, Number of Farms, and Farm Size

| Type of Land | 2012 | 2017 | 2022 |
|---|---|---|---|
| **Land in Farms (acres)** | 43,257,079 | 43,243,742 | 42,304,601 |
| **Land Use** | | | |
| Cropland (acres) | 19,147,320 | 19,813,517 | 18,488,619 |
| Permanent Pasture (acres) | 22,545,069 | 21,997,620 | 22,254,830 |
| Woodland (acres) | 294,445 | 284,905 | 335,032 |
| Others (acres) | 1,270,245 | 1,147,700 | 1,226,120 |
| **Number of Farms** | 31,989 | 29,968 | 28,299 |
| **Average size of Farm (acres)** | 1,352 | 1,443 | 1,495 |

**Note:** This table summarizes land in farms, the number of farms, and the average farm size from 2012-2022 in South Dakota using data from the Census of Agriculture. Permanent pasture and rangeland do not include cropland and woodland pastures. Others are land in farmsteads, homes, buildings, livestock facilities, ponds, roads, wastelands, etc.

Between 2017 and 2022, South Dakota lost approximately 940,000 acres of agricultural land, as shown in Table 1. Among land use types, cropland experienced the most significant decrease between these two Census years, while pasture increased by 257,210 acres.

There are several possible reasons for the decrease in agricultural land. The decline in agricultural land can be due to being inundated with water, such as Brown, Clark, and Day counties (Elliot et al., 2020). Other reasons could be the land conversion from cropland to pasture or the loss of agricultural land due to development and urban pressure. The change in acres of cropland and pasture at the county level could also be due to the variation in responses across the state and census years. Although the Census of Agriculture is a completed count of U.S. farms and ranches and the people who operate them, the respondent rate for the 2022 Census of Agriculture was only 61% for the US and less than 55% for South Dakota.

Figures 1a and b shows the change in cropland by county between 2017 and 2022 in South Dakota using data from the Census of Agriculture. Cropland change in a county between 2017 and 2022 is calculated as the total cropland in 2022 minus the total cropland for that county in 2017.

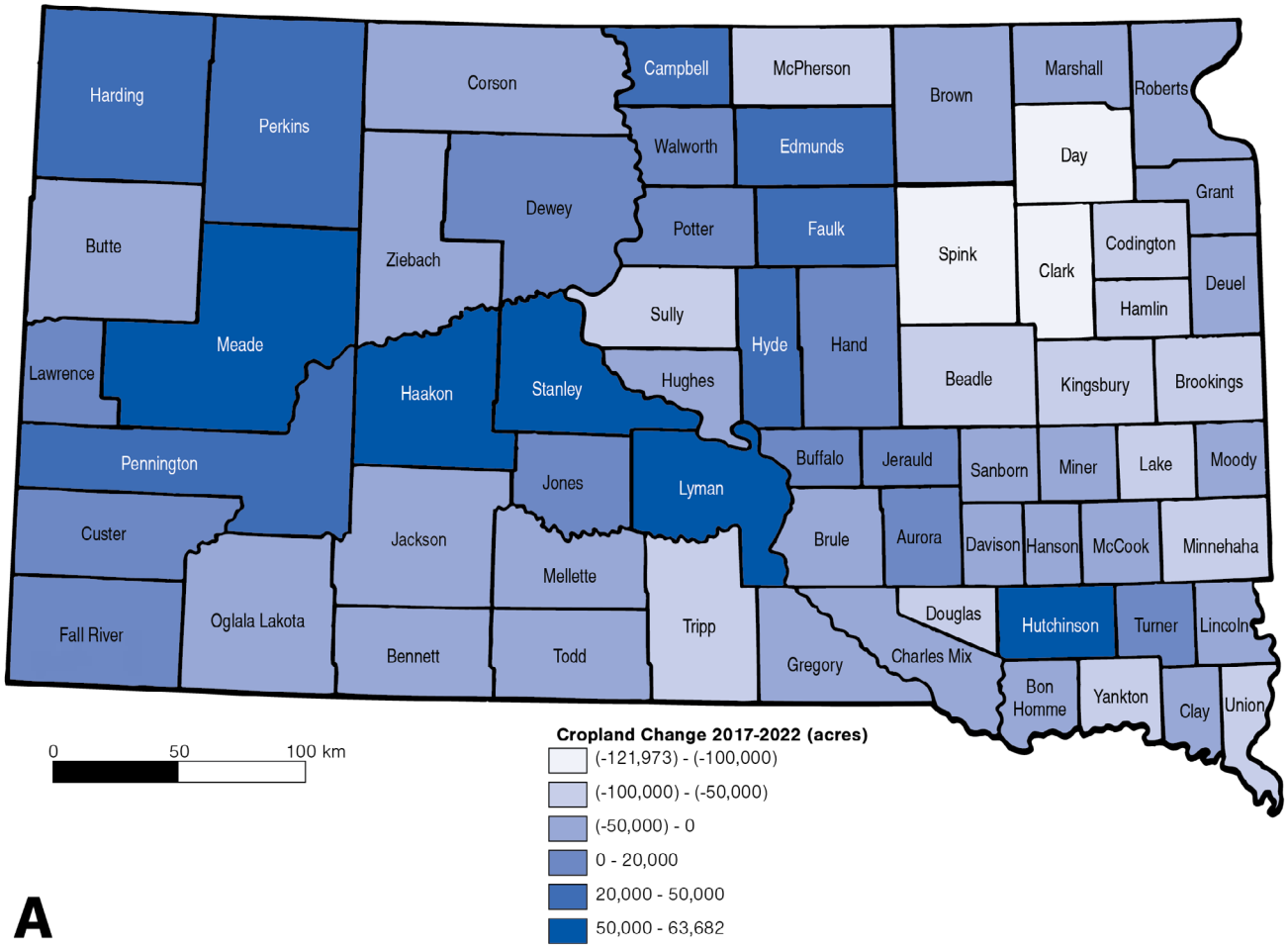


**Figure 1a.** Acres Change in Cropland Land in South Dakota 2017-2022. **Note:** This figure plots the change in cropland land by county in South Dakota from 2017-2022 using data from the Census of Agriculture. Change in cropland in a county between 2017 and 2022 is calculated as the cropland in that county in 2022 minus cropland for that county in 2017.

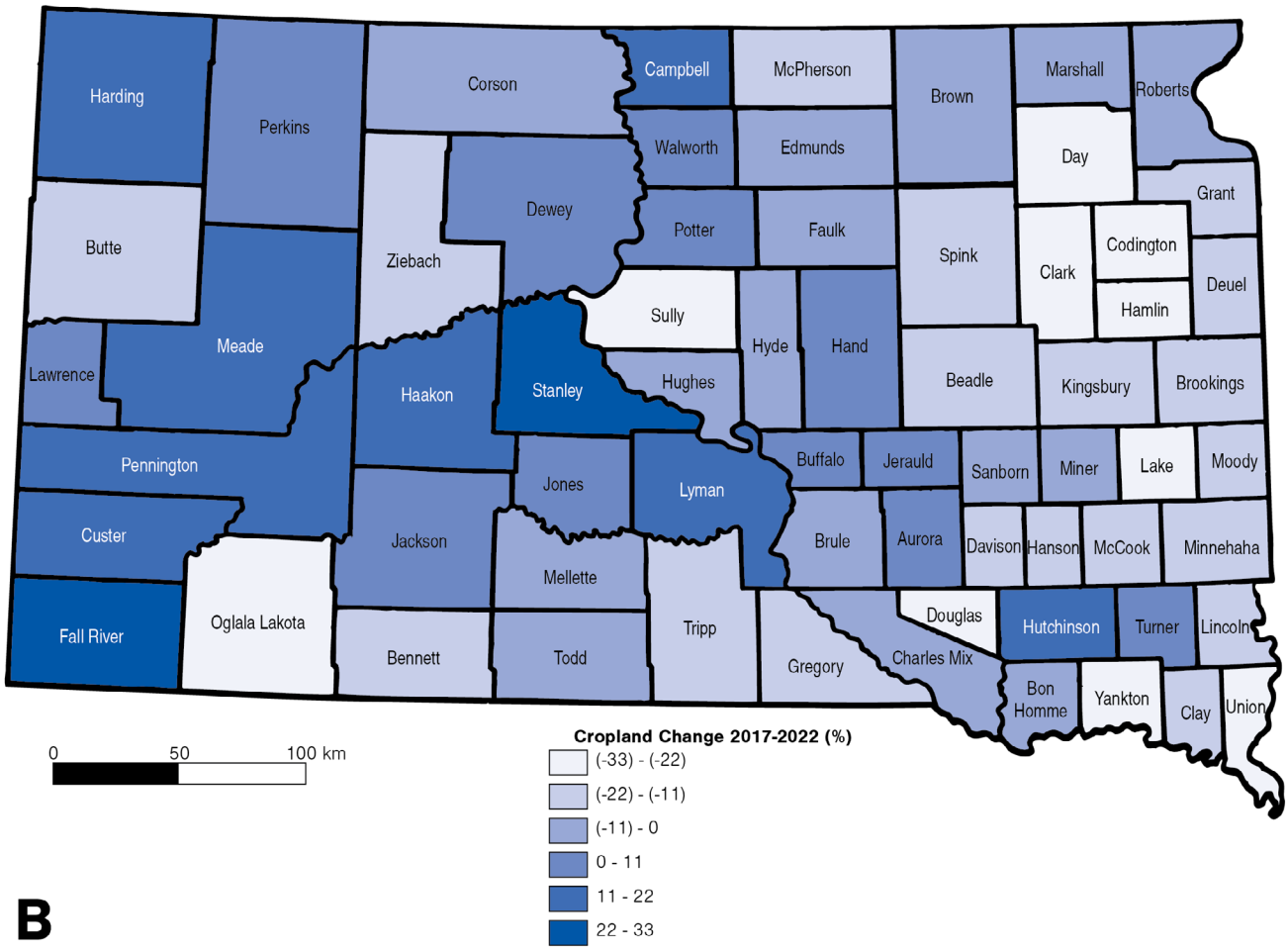


**Figure 1b.** Percentage Change in Cropland Land in South Dakota 2017-2022. **Note:** This figure plots the change in cropland land by county in South Dakota from 2017-2022 using data from the Census of Agriculture. Change in cropland in a county between 2017 and 2022 is calculated as the cropland in that county in 2022 minus cropland for that county in 2017.

Many counties east of the Missouri River experienced a decrease in cropland. Cropland in counties such as Day, Spink, and Clark decreased by more than 100,000 acres in 2017-2022. In the west of the Missouri River, cropland increased by more than 50,000 acres per county in Meade, Haakon, Stanley, and Lyman.

Most of the counties on the east of the Missouri River experience a decrease in pasture, while many counties on the west of the Missouri River (except 6 counties) experience an increase in pasture between 2017 and 2022, as shown in Figures 2a and b.

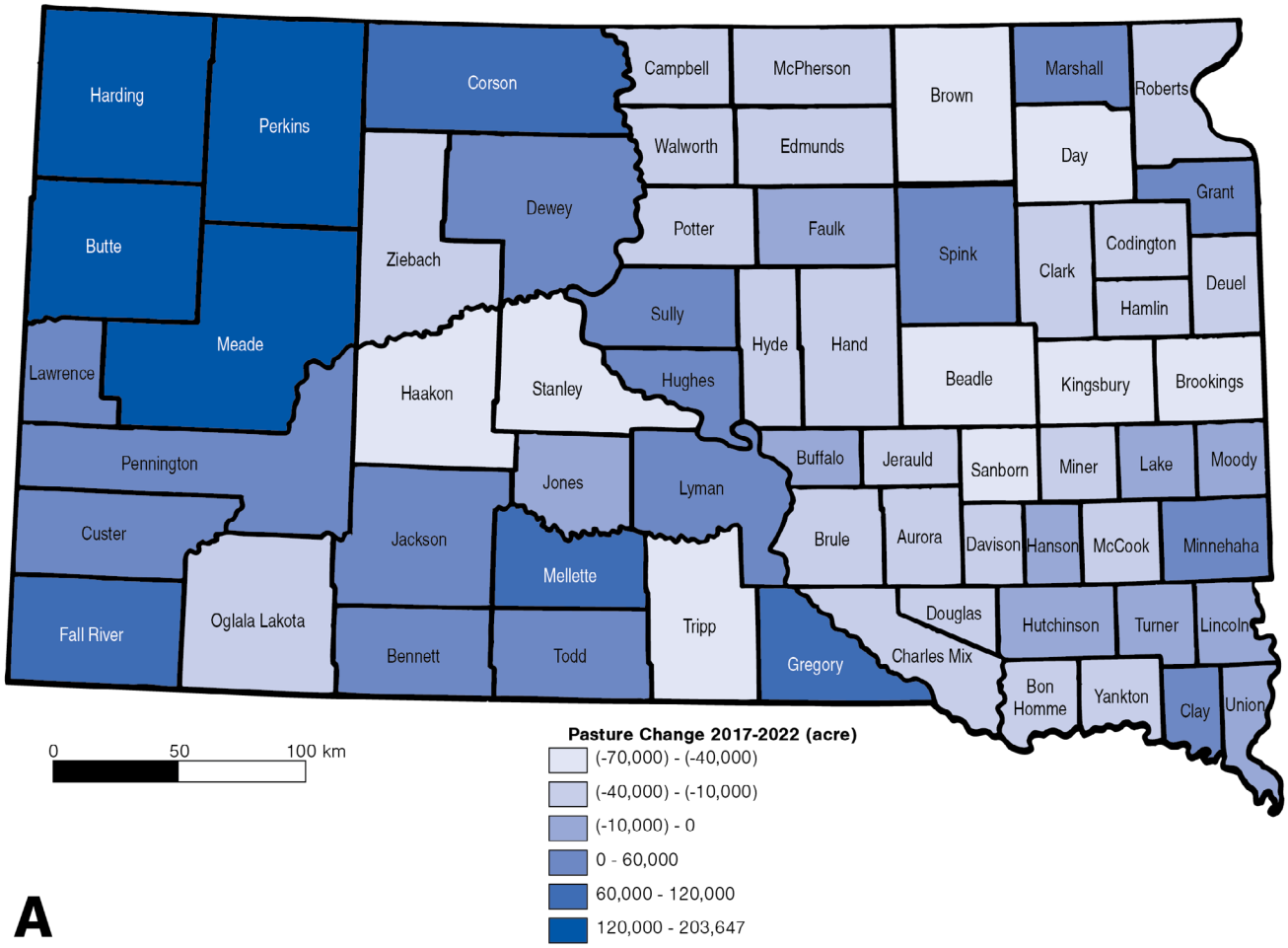


**Figure 2a.** Acres Change in Pasture in South Dakota 2017-2022. **Note:** This figure plots the change in pasture (all types) by county in South Dakota from 2017-2022 using data from the Census of Agriculture. Change in pasture in a county between 2017 and 2022 is calculated as the pasture in that county in 2022 minus pasture for that county in 2017.

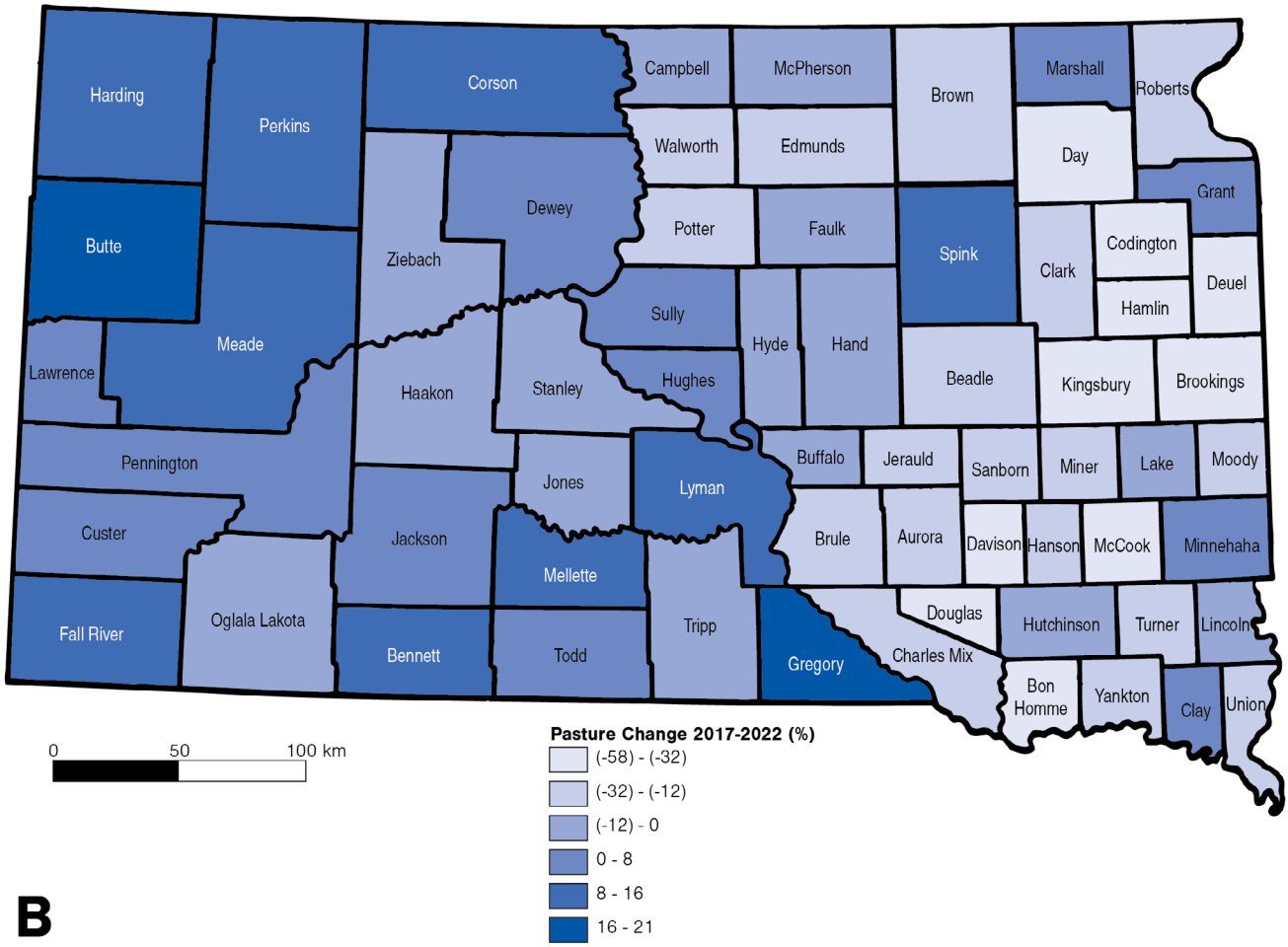


**Figure 2b.** Percentage Change in Pasture in South Dakota 2017-2022. **Note:** This figure plots the change in pasture (all types) by county in South Dakota from 2017-2022 using data from the Census of Agriculture. Change in pasture in a county between 2017 and 2022 is calculated as the pasture in that county in 2022 minus pasture for that county in 2017.

Figure 3 shows the number of farms grouped by farm size. Between 2012 and 2017, the number of farms decreased for all groups except those with the largest farms—2,000 acres or bigger farms. One reason that farms get bigger is due to economies of size, which means the average production cost decreases as the size of the farm increases (MacDonald et al., 2013). However, the consolidation trend to become very large farms was no longer true between 2017 and 2022. Except for the group of farms between 180 and 499 acres, which experienced an increase, and the group of farms between 50 and 179 acres, which experienced a slight increase in the number of farms, all other groups experienced a decrease in the number of farms, even the group of the largest farms.

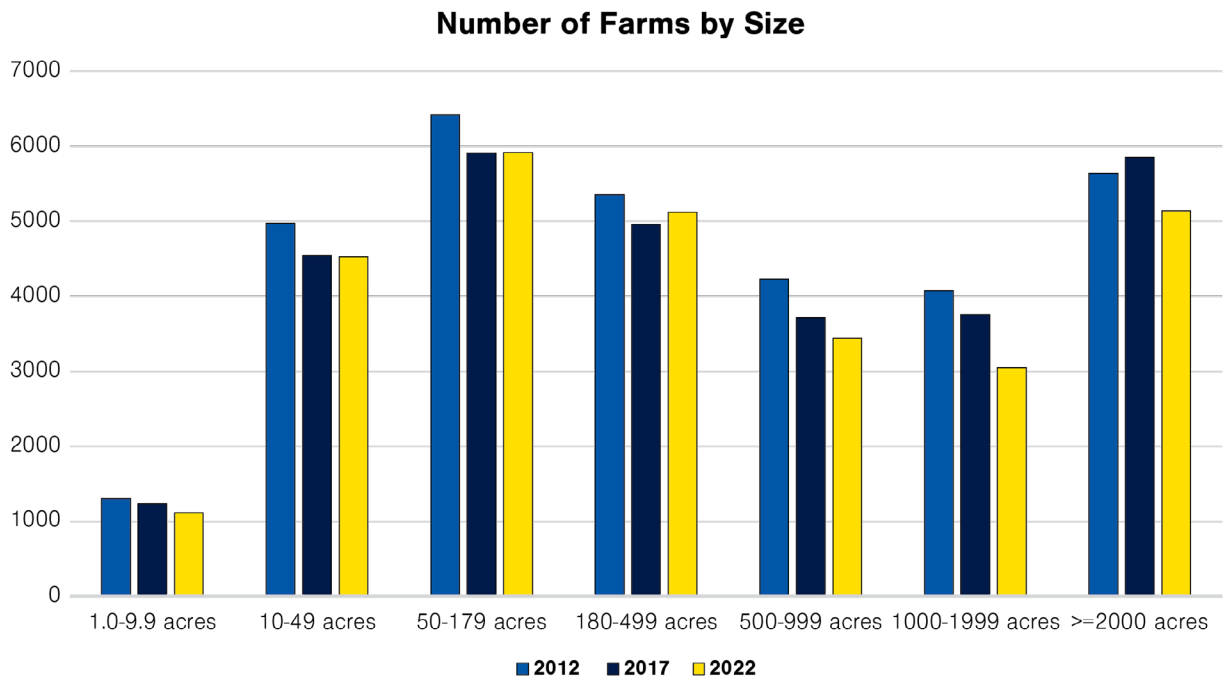


**Figure 3.** South Dakota Number of Farms by Size 2012-2022. **Note:** This figure plots number of farms by size in South Dakota from 2012-2022 using data from Census of Agriculture.

## 2. Who Operates Farms in South Dakota?

Table 2 reports the tenure of farm operations in South Dakota. Full owners operate more than half of farms in South Dakota. The number of farms operated by part owners decreased from 12,802 farms in 2012 to 9,957 farms in 2022. Tenant operation accounts for a small number of farms, but they operate a larger farm than full owners on average. In 2022, full owners operated 55% of the total number of farms, accounting for 23.5% of the total land in farms. Part-owners, who operate both land they own and rent from others, account for 35.2% of the number of farms and 68.2% of the total land in farms. Tenant, who only operate land they rent from others or work on shares for others, accounts for 9.8% of the number of farms and 8.2% of the total land in farms.

**Table 2.** Tenure of Farm Operation in South Dakota

| Tenure | | 2012 | 2017 | 2022 |
|---|---|---|---|---|
| **Full Owners** | Farms | 16,413 | 15,400 | 15,571 |
| | Percent | 51.3% | 51.4% | 55.0% |
| | Acres | 11,965,042 | 10,225,555 | 9,955,894 |
| | Average Size | 729 | 664 | 639 |
| **Part Owners** | Farms | 12,802 | 11,764 | 9,957 |
| | Percent | 40% | 39.3% | 35.2% |
| | Acres | 28,350,099 | 29,905,605 | 28,865,183 |
| | Average Size | 2,215 | 2,542 | 2,899 |
| **Tenant** | Farms | 2,774 | 2,804 | 2,771 |
| | Percent | 8.7% | 9.3% | 9.8% |
| | Acres | 2,941,938 | 3,112,582 | 3,483,524 |
| | Average Size | 1,061 | 1,110 | 1,257 |

**Note:** This table summarizes the farmland tenure in South Dakota from 2012-2022 using data from the Census of Agriculture. Full owners only operate the land they own. Part owners operate land they own and also land they rent from others. Tenants only operate land they rent from others or work on shares for others.

Table 3 reports farm by legal status for tax purposes in South Dakota between 2012-2022. Families or individuals own more than 80 percent of the farms in South Dakota. In 2012, 86.1% of farms were family or individual-owned, but this number decreased to 80.9% in 2022. Partnership and corporation accounted for 6.7% and 5.1% of total farms in 2012. In 2022, partnership and corporation increased and accounted for 8.5% and 8% of total number of farms, respectively.

**Table 3.** Farm by Legal Status for Tax Purposes

| Legal Status | 2012 | | 2017 | | 2022 | |
|---|---|---|---|---|---|---|
| | N. of Farms | Percent | N. of Farms | Percent | N. of Farms | Percent |
| Family or individual (sole proprietorship) | 27,544 | 86.1 | 24,925 | 83.2 | 22,903 | 80.9 |
| Partnership | 2,150 | 6.7 | 2,306 | 7.7 | 2,400 | 8.5 |
| Corporation | 1,644 | 5.1 | 1,908 | 6.4 | 2,269 | 8 |
| Other | 651 | 2.1 | 829 | 2.8 | 727 | 2.6 |
| **Total** | 31,989 | 100 | 29,968 | 100 | 28,299 | 100 |

**Note:** This table summarizes farms by legal status in South Dakota from 2012-2022 using data from the Census of Agriculture. Family or individual (sole proprietorship) excludes partnership and corporation. Partnership includes family partnership. Corporation includes family corporations. Other are estate or trust, prison farm, grazing association, American Indian reservation, etc.

## 3. Producer Characteristics

Table 4 reports the characteristics and demographics of South Dakota Producers. The 2017 and 2022 Census of Agriculture reports up to four producers per farm. The 2012 Census of Agriculture reports up to three producers per farm. Since the number of producers per operation that the Census of Agriculture collected is inconsistent between 2012 and later, we will compare the producer characteristics between 2017 and 2022. In 2017, 30.4% of total producers in South Dakota were female, while this number is 31.2% in 2022. However, fewer producers report their primary occupation as farming. In 2022, 72.5% of producers reported they have operated their current farm for ten years or more, and 75.2% of producers have been farming for eleven years or more. The average age of producers increased from 56.2 in 2017 to 57.2 in 2022, with an increase in producers of age groups 65-74 and 75 or above, as shown in Figure 4. The majority of South Dakota producers are white, accounting for over 97% of total producers. American Indian or Alaska Native accounts for 2% of all producers, as shown in Table 5.

**Table 4.** Producer Characteristics – All Producers

| Producer Characteristics | | 2012 | 2017 | 2022 |
|---|---|---|---|---|
| **All Producers** | Total | 47,870 | 48,913 | 51,071 |
| | Female | 25.3% | 30.4% | 31.2% |
| | Male | 74.7% | 69.6% | 68.8% |
| **Primary Occupation** | Farming | 55% | 53% | 47.5% |
| | Other | 45% | 47% | 52.5% |
| **Years on Present Farm** | ≤ 2 years | 3.1% | 4% | 4.7% |
| | 3-4 years | 4.7% | 6% | 6.6% |
| | 5-9 years | 13% | 12.3% | 16.2% |
| | ≥ 10 years | 79.2% | 77.7% | 72.5% |
| **Years Operating any Farms** | ≤ 5 years | NA | 9.8% | 11.8% |
| | 6-10 years | NA | 11% | 13% |
| | ≥ 11 years | NA | 79.2% | 75.2% |
| **Average Age** | | 54.3 | 56.2 | 57.2 |

**Note:** This table summarizes the producer characteristics in South Dakota from 2012-2022 using data from the Census of Agriculture. The Census of Agriculture reports up to four producers per operation. 2017 Census of Agriculture collected data for a maximum of four producers per farm. 2012 Census of Agriculture collected data for a maximum of three producers per farm.

**Table 5.** Producers by Race

| Race | 2012 | 2017 | 2022 |
|---|---|---|---|
| American Indian or Alaska Native | 1,243 | 1,034 | 997 |
| Asian | 16 | 24 | 35 |
| Black or African American | 11 | 13 | 10 |
| Native Hawaiian or Other Pacific Islander | 5 | 11 | 11 |
| White | 46,425 | 47,600 | 49,726 |
| More than one race reported | 170 | 231 | 292 |
| **Total** | 47,870 | 48,913 | 51,071 |

**Note:** This table summarizes South Dakota producers by race from 2012-2022 using data from the Census of Agriculture. 2017 Census of Agriculture collected data for a maximum of four producers per farm. 2012 Census of Agriculture collected data for a maximum of three producers per farm.

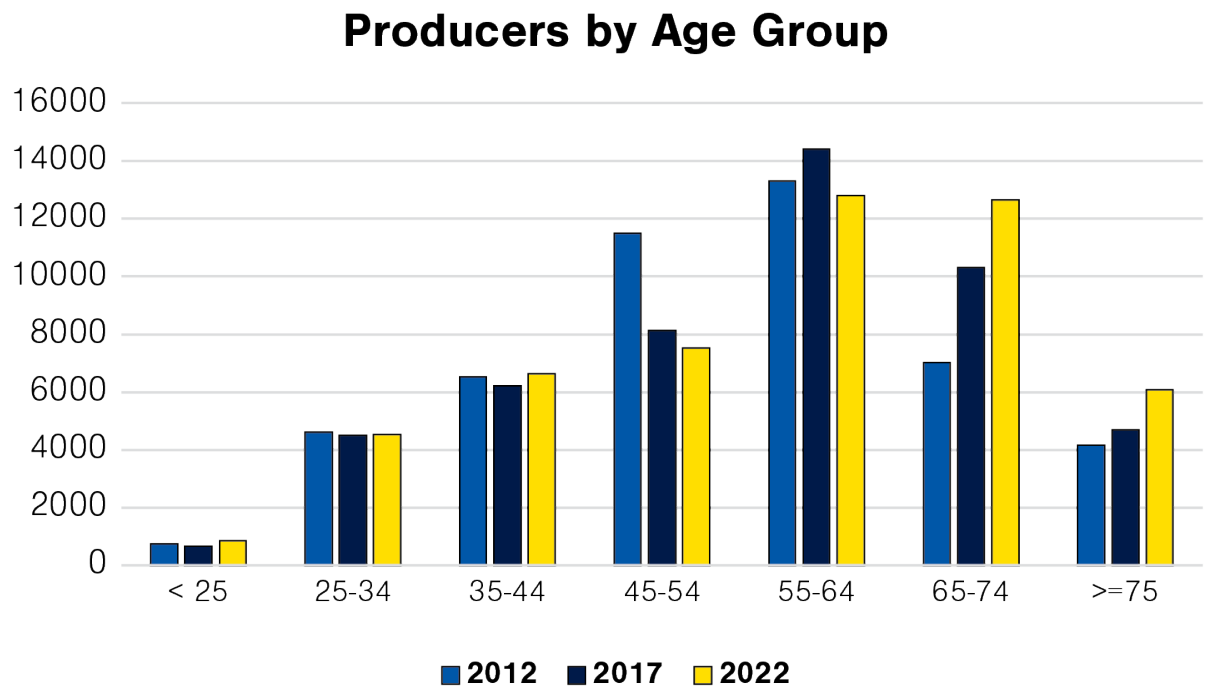


**Figure 4.** South Dakota Producers by Age group. **Note:** This figure plots all producers by age group in South Dakota from 2012-2022 using data from Census of Agriculture.

## Reference

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