*Datasets / Variable Definitions*

*for MUDAC 2024*

**Name: AgDistricts.csv**

Source: [Link](https://drive.google.com/file/d/1RF4xI_aqECTAnu6jvesMQzQWoNZgeoTo/view?usp=sharing)

| **Col** | **Variable** | **Variable Description** |
| --- | --- | --- |
| 1 | State | State = MINNESOTA |
| 2 | County | County Name |
| 3 | ANSI | Unique American National Standards Institute (ANSI) code for each county in Minnesota |
| 4 | Ag District | Agricultural Districts in Minnesota; Northwest (10), North Central (20), Northeast (30), West Central (40), Central (50), East Central (60), Southwest (70), South Central (80), Southeast (90)  Source: [Link](https://drive.google.com/file/d/1RF4xI_aqECTAnu6jvesMQzQWoNZgeoTo/view?usp=sharing) |
| 5 | Ag District Code | Numeric Code for Agricultural Districts in Minnesota; Northwest (10), North Central (20), Northeast (30), West Central (40), Central (50), East Central (60), Southwest (70), South Central (80), Southeast (90) |

**Name: Animals.csv**

Source: <https://quickstats.nass.usda.gov/>

| **Col** | **Variable** | **Variable Description** |
| --- | --- | --- |
| 1-5 | Same as AgDistricts.csv | See description for Ag Districts.csv |
| 6 | Year | Year; 2010 - 2023 |
| 7 | CATTLE, COWS, BEEF - INVENTORY | The number of cows - beef (head count) |
| 8 | CATTLE, COWS, MILK - INVENTORY | The number of cows - milk (head count) |
| 9 | CATTLE, INCL CALVES - INVENTORY | The number of cattle including calves (head count) |
| 10 | CATTLE, ON FEED - INVENTORY | The number of cows - feedlot (head count); Only for years 2012, 2017, and 2022 |
| 11 | HOGS - INVENTORY | The number of hogs (head count); Only for years 2012, 2017, and 2022 |
| 12 | TURKEYS - INVENTORY | The number of turkeys (head count); Only for years 2012, 2017, and 2022 |

**Name: CropProductivityIndex.csv**

Source: <https://landeconomics.umn.edu/>

| **Col** | **Variable** | **Variable Description** |
| --- | --- | --- |
| 1-5 | Same as AgDistricts.csv | See description for Ag Districts.csv |
| 6 | CPI | Crop Productivity Index; Ranges from 0 to 100; A higher value indicates a higher quality of soil for the production of crops  Source: [Link](https://landeconomics.umn.edu/landdata/Productivity/Intro.aspx?RI=1487845) |
| 7 | Notes | Identifies counties were a secondary source was used to obtain the CPI |

**Name: Crops.csv**

Source: <https://quickstats.nass.usda.gov/>

| **Col** | **Variable** | **Variable Description** |
| --- | --- | --- |
| 1-5 | Same as AgDistricts.csv | See description for Ag Districts.csv |
| 6 | Year | Year; 2010 - 2023 |
| 7 | CORN - ACRES PLANTED | The amount of corn planted (acres) |
| 8 | CORN, GRAIN - ACRES HARVESTED | The number of acres of corn - grain harvested (acres) |
| 9 | CORN, GRAIN - PRODUCTION, MEASURED IN BU | The total amount of corn - grain produced (bushels) |
| 10 | CORN, GRAIN - YIELD, MEASURED IN BU / ACRE | The amount of corn - grain produced per acre (bushels per acre) |
| 11 | CORN, SILAGE - ACRES HARVESTED | The number of acres of corn - silage harvested (acres) |
| 12 | CORN, SILAGE - PRODUCTION, MEASURED IN TONS | The total amount of corn - silage produced (tons) |
| 13 | CORN, SILAGE - YIELD, MEASURED IN TONS / ACRE | The amount of corn - silage produced per acre (tons / acre) |
| 14 | SOYBEANS - ACRES HARVESTED | The amount of soybeans harvested (acres) |
| 15 | SOYBEANS - ACRES PLANTED | The amount of soybeans planted (acres) |
| 16 | SOYBEANS - PRODUCTION, MEASURED IN BU | The total amount of soybeans produced (bushels) |
| 17 | SOYBEANS - YIELD, MEASURED IN BU / ACRE | The amount of soybeans produced per acre (bushels / acre) |
| 18 | SUGARBEETS - ACRES HARVESTED | The amount of sugerbeats harvested (acres) |
| 19 | SUGARBEETS - ACRES PLANTED | The amount of sugerbeets planted (acres) |
| 20 | SUGARBEETS - PRODUCTION, MEASURED IN TONS | The amount of sugarbeets produced (tons) |
| 21 | SUGARBEETS - SUCROSE, MEASURED IN PCT | The sucrose level of sugarbeets produced (percent) |
| 22 | SUGARBEETS - YIELD, MEASURED IN TONS / ACRE | The amount of sugarbeets produced per acre (tons/acre) |

Note: SUGARBEETS data are somewhat sparse.

**Name: FertilizerConsumption.csv**

Source: <https://www.mda.state.mn.us/pesticide-fertilizer/fertilizer-use-sales-data>

Note: Data from Tables 6 & 7 from the pdf files provided on this website.

| **Col** | **Variable** | **Variable Description** |
| --- | --- | --- |
| 1-5 | Same as AgDistricts.csv | See description for Ag Districts.csv |
| 6 | Year | Year; 2010 - 2020 |
| 7 | Urea (46-0-0) | The amount of Urea applied to tillable land in the county (tons) |
| 8 | Potash (0-0-60) | The amount of Potash applied to tillable land in the county (tons) |
| 9 | Monammonium Phosphate (MAP) (11-52-0) | The amount of MAP applied to tillable land in the county (tons) |
| 10 | Diammonium Phosphate (DAP) (18-46-0) | The amount of DAP applied to tillable land in the county (tons) |
| 11 | Ammonia (82-0-0) | The amount of Ammonia applied to tillable land in the county (tons) |

**Name: TillableLand.csv**

Source: <https://landeconomics.umn.edu/>

| **Col** | **Variable** | **Variable Description** |
| --- | --- | --- |
| 1-5 | Same as AgDistricts.csv | See description for Ag Districts.csv |
| 6 | Year | Year; 2010 - 2023 |
| 7 | Total Class 2a Tillable Acres | Amount of Class 2a tillable land which is agricultural land that can cultivated for row crops or grains. (acres)  Source: [Link](https://landeconomics.umn.edu/landdata/LandValue/intro.aspx) |
| 8 | Total Estimated Value | The total estimated value of all Class 2a tillable land (dollars) |
| 9 | Estimated Value Per Acre | Estimated Class 2a tillable land value per acre (dollars / acre) |