# Champions of Breakfast 

How Cereal-Makers Can Help Save Our Soil, Support Farmers, and Take a Bite out of Climate Change
www.ucsusa.org/champions-of-breakfast

## Appendix: Data Tables and Notes

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Table A1. Corn Dominates US Production and Use Relative to Other Grains

|  | Corn | Oats | Wheat | Rice |
| :--- | :--- | :--- | :--- | :--- |
| Domestic use (billion pounds) $^{1}$ | 692.2 | 4.7 | 64.7 | 13.5 |
| Imports (billion pounds) $^{1}$ | 2.0 | 2.8 | 9.4 | 2.7 |
| Production (billion pounds) | 818.1 | 1.6 | 104.5 | 17.8 |
| Domestic use from imports (\%) $^{\text {Area planted (million acre) }}$ ( | 0.3 | 61.0 | 14.6 | 20.0 |
| Area harvested (million acre) $^{1}$ | 90.2 | 2.6 | 46.1 | 2.5 |
| Yield (bushels/acre) $^{1}$ | 82.7 | 0.8 | 37.6 | 2.4 |
| Standard weight (pounds/bushel) |  |  |  |  |
| Yield (pounds/acre) | 177 | 62 | 46 | 167 |

Notes: Other grains included in breakfast cereals less frequently were not included in this analysis (for example, barley, flax, amaranth, millet, buckwheat, and quinoa).
${ }^{1}$ USDA 2019
${ }^{2}$ NASS 2018

Table A2. Healthy Soil Practices in the United States and Iowa, 2012-2017, With Critical Soil-Health Practices Remaining Rare

|  |  | United States |  | Iowa |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 2017 | 2012 | 2017 | 2012 |
| Acres | Total farmland operated | 900,217,576 | 914,527,657 | 30,563,878 | 30,622,731 |
|  | Total cropland harvested | 320,041,858 | 314,964,600 | 24,347,862 | 24,507,219 |
|  | No-till | 104,452,339 | 96,476,496 | 8,196,199 | 6,950,836 |
|  | Conservation till | 97,753,854 | 76,639,804 | 10,132,599 | 8,760,348 |
|  | Cover crop planted | 15,390,674 | 10,280,793 | 973,112 | 379,614 |
| \# Operations | Total farming operations | 2,042,220 | 2,109,303 | 86,104 | 88,637 |
|  | Total cropland operations | 1,245,548 | 1,288,875 | 61,495 | 63,214 |
|  | No-till | 279,370 | 278,290 | 24,025 | 22,621 |
|  | Conservation till | 217,069 | 195,738 | 26,532 | 24,911 |
|  | Cover crop planted | 153,402 | 133,124 | 8,729 | 7,195 |
|  | Agroforestry | 30,853 | 2,725 | 822 | 13 |

Notes: The USDA tracks a limited subset of healthy-soils practices through the Census of Agriculture, which is conducted every five years. The most recent Census of Agriculture suggested that some healthy-soils practices are being used on more acres and by a greater number of operations, but they remain relatively rare as compared to total farmland and cropland operations within both the United States and Iowa (NASS 2019). The agroforestry category changed between 2012 and 2017. In 2012 the category included only alley cropping and silvopasture. In 2017 the category was expanded to include operations that practiced forest farming or had riparian forests, buffers, or windbreaks. Agroforestry data are only available by number of operations, not by acres.

Table A3. Estimated Acres Needed to Produce Popular Corn- and Oat-Based Cereals and Oatmeal

|  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Brand | 2017 Sales <br> (million \$) | Estimated <br> servings <br> (million) | Serving <br> size <br> (g) | Grain <br> product <br> per serving <br> $(\mathbf{g})^{1}$ | Grain product <br> per year <br> (million pounds) | Grain per year <br> (million bushels) | Grain per <br> year <br> (acres) |
| Frosted Flakes | 400.10 | 1745 | 29 | 19 | 73 | 2.3 | 12,817 |
| Froot Loops | 253.00 | 764 | 29 | 19 | 32 | 1.0 | 5,611 |
| Cheerios | 320.00 | 966 | 28 | 27 | 58 | 2.8 | 45,930 |
| Honey Nut <br> Cheerios | 496.60 | 1833 | 28 | 19 | 77 | 3.8 | 61,304 |
| Lucky Charms | 244.20 | 901 | 27 | 17 | 34 | 1.7 | 26,973 |
| Honey Bunches <br> of Oats | 404.90 | 864 | 56 | 44 | 84 | 4.1 | 66,923 |
| Quaker Oatmeal | $\mathrm{n} / \mathrm{a}$ | $1800^{2}$ | 40 | 40 | 159 | 8.6 | 139,063 |

${ }^{1}$ Grain products and sugar were the top two ingredients for the cereals used in this analysis, with salt, vitamins, minerals, and preservatives making up the remaining ingredients. For ready-to-eat cold cereals, we assumed that grain accounted for the weight of all non-sugar ingredients.
${ }^{2}$ Quaker Old Fashioned Oatmeal was not among the top 10 cereals from 2017. Therefore, for this breakfast product we did not calculate the number of servings sold and consumed each year. Instead, for comparison, we estimated how many acres of oats would be needed to produce a similar number of breakfast servings as were sold for the top corn- and oat- based cereals. Sources: Sales values for the most popular 10 cold cereals from 2017 were from Statista (2019). We used prices for standard-sized (10 to 18 ounce) cereal boxes at a Walmart in Des Moines, Iowa; prices were $\$ 2.98$ per box for all cereals except Honey Bunches of Oats, which was $\$ 3.28$ per box. We assumed that one bushel of oats was equivalent to 32 pounds of unprocessed oats, 20.3 pounds of oat flour, or 18.5 pounds oatmeal, and that one bushel of corn was equivalent to 56 pounds of shelled corn or 32.3 pounds of milled corn (ERS 1992).

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