Table S1: Grazed forage yields on cropland pasture and other grazing lands

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| --- | --- | --- | --- | --- |
| Step | Calculation | Units | Value | Notes |
| Feed value obtained from grazing lands | Feed consumed as pasture, corn basis | Million tons  | 158 | 1 |
| Conversion, corn to pasture | Tons forage DM ton corn-1 | 1.30 | 2 |
| Feed consumed as pasture, forage basis | Million tons forage DM | 205 | 3 |
| Land used for grazing | All land | Million acres | 775 | 4 |
| Cropland pasture | Million acres | 36 | 5 |
| Other grazing land | Million acres | 739 | 6 |
| Grazing yields, cropland pasture | Hay yields, cropland pasture | Pounds forage acre-1 | 3876 | 7 |
| Forage equivalents | DM grazed DM harvested as hay-1 | 0.51 | 8 |
| Grazing yield, cropland pasture | Pounds forage acre-1 | 1995 | 9 |
| Grazing yields, grazing land | Feed value of cropland pasture | Billion lbs forage DM | 72 | 10 |
| Feed value of other grazing land | Billion lbs forage DM | 339 | 11 |
| Grazing yield, other grazing land | Pounds forage DM acre-1 | 458 | 12 |

1Value shown for pasture from Table 1-77: Feed consumed by livestock and poultry, by type of feed, with quantity expressed in feeding value of corn, 2000-2009 of *Agricultural Statistics* (USDA-NASS, 2010). Note that pasture includes all grazing lands.

2Feed value of corn converted to feed value of pasture assuming a dry matter content of 89.4% and digestibility of 88.2% (TDN basis) for corn. Feed value of pasture biomass assumed for be 60.8% (TDN basis). Conversion factor equals (0.894\*0.882)/0.608.

3Equals product of feed consumed on corn basis and conversion factor.

4From *Major Land Uses* (USDA-ERS, 2011)

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6Calculated by difference.

7Ten-year average. Calculated from yields of Hay, excluding alfalfa from USDA-NASS (2014).

8Yield of forage under grazing calculated by using hay yields to estimate aboveground biomass and a grazing efficiency factor to determine the amount harvested by grazing livestock. Assumes that the stubble remaining after mowing is 15% of the aboveground biomass and that 20% of cut biomass is lost in hay harvest. Grazing efficiency on cropland pasture is assumed to be 35% of total aboveground biomass under continuous grazing (see glossary of USDA-NRCS, 2003).

9Equals product of hay yield and conversion factor.

10Equals yield times area.

11Calculated by difference (Total feed value minus feed value of cropland pasture).

12Equals feed value divided by area of other grazing land.