

Table 4, Estimating Residues, lists the approximate residue produced by various crops. Table 5, Residue Types, lists the types of residue, nonfragile or fragile. Table 6, Residue Reduction, lists residue reducing type activities and the percent of residue estimated to remain after the designated activity. These two tables are needed to determine the amount of residue on the field during the critical wind erosion period or any other management method.

TABLE 4
ESTIMATING RESIDUE

| Crop | Estimated Air Dry Residue Produced |
|--------------------------------------|---|
| Alfalfa..... | 3,000 lbs./a. |
| Barley | 80 lbs./bu. |
| Buckwheat | 1.5 lbs./lb. |
| Corn | 60 - 90 lbs./bu. |
| 1/ Corn and/or Sorghum Silage | 50 lbs. residue per inch of stubble height per 10,000 plants/a. |
| Dry Edible Beans | 1.0 lbs./lb. |
| Field Peas | 1.0 lbs./lb. |
| Flax | 80 lbs./bu. |
| 1/ Grain Sorghum | 60 lbs./bu. |
| Lentils | 1.0 lbs./lb. |
| Millet | 80 lbs./bu. |
| Mustard | 1.5 lbs./lb. |
| Oats | 50 lbs./bu. |
| Rape Seed | 1.5 lbs./lb. |
| Rye..... | 120 lbs./bu. |
| Safflower | 1.5 lbs./lb. |
| 2/ Soybeans..... | 50 lbs./bu. |
| Spring Wheat, Durum..... | 100 lbs./bu. |
| Sugarbeets | 150 lbs./ton |
| 1/ Sunflower | 2.2 lbs./lb. |
| Winter Wheat..... | 120 lbs./bu. |
| 3/ Potatoes, WEGs 1 & 2 | |
| Irrigated, without desiccant..... | 1,100 lbs. (575 lbs. SGe) |
| Irrigated, with desiccant | 600 lbs. (250 lbs. SGe) |
| Dryland | 0 lbs. (0 lbs. SGe) |
| 3/ Potatoes, WEGs 3, 4, 5, 6, 7, & 8 | |
| Irrigated, without desiccants | 1,500 lbs. (850 lbs. SGe) |
| Irrigated, with desiccant | 800 lbs. (375 lbs. SGe) |
| Dryland, without desiccant | 1,000 lbs. (500 lbs. SGe) |
| Dryland, with desiccant | 545 lbs. (240 lbs. SGe) |

- 1/ Field experience in the Northern Great Plains indicates the ratio of residue to grain is higher when crops are grown in narrow row seedings. Research data is not available at this time to confirm this common observation. Until research is available, these residue production values may be increased 30 percent when these crops are planted in rows less than 20 inches apart.
- 2/ Soybeans are considered "narrow row" when planted in rows not over 14 inches apart. The most common spacing is 7 to 8 inches. Field experience in the Northern Great Plains indicates the ratio of residue to grain is higher when soybeans are grown in narrow row seedings, as compared to wide row seedings. Research data is not available, at this time, to confirm this common observation. Until research is available, a ratio of 65 pounds residue per bushel of grain may be used for narrow row soybeans.
- 3/ Potato residue varies significantly with potato varieties, time of harvest, fertility program, and leaf diseases. If the figures in this table are not accepted, the alternative of collecting surface residue and weighing is available. Refer to the Range Handbook for residue collecting or contact your area agronomist. A minimum of five collections will be required. Weights will be on an air dry basis.

In calculating soil losses, we are using productivity indexes. If you need to convert spring wheat yields to yields of other crops, use the following:

Factors to convert spring wheat yields:

| | | |
|-------------|----|-----------------------------------|
| Oats | -- | Wheat Yield x 2.125 (bushels) |
| Barley | -- | Wheat Yield x 1.625 (bushels) |
| Corn | -- | Wheat Yield x 2.2 (bushels) |
| Flax | -- | Wheat Yield x 0.5 (bushels) |
| Sunflowers | -- | Wheat Yield x 50 (hundred weight) |
| Soybeans | -- | Wheat Yield x 0.73 (bushels) |
| Sugar Beets | -- | Wheat Yield x 0.3625 (tons) |
| Rye | -- | Wheat Yield x 1.275 (bushels) |