

Keeping
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Research

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DAYS SUITABLE FOR FIELD WORK IN KANSAS

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Selecting the most profitable combination of crop and livestock enterprises is influenced by the number of field workdays available to prepare the seed bed, to plant, to cultivate, and to harvest crops. Also, the least-cost size of equipment is affected by the numbers of tillable acres and days available for field work. When tillable acreage is increased, the farmer must determine what crops and machinery size best fit the larger farm.

Limited field workdays during the critical planting and harvesting periods necessitate productive labor use. Less productive use of labor, if possible, should be postponed until a rainy day or until after the busy season.

Decisions on how large a tractor, planter, plow, or other piece of machinery to buy are more complex than calculating the size necessary to minimize per-acre costs. To complete spring tillage and planting operations in some years, the largest available machinery is required on an average-sized Kansas farm. In other years, when rainfall interferes infrequently with completing spring field work, farmers have little difficulty scheduling tillage, planting, and haying operations with average-sized equipment.

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Data and Procedure

To help farmers plan machinery size for timely field work, the Kansas State Board of Agriculture publishes reports weekly on the number of days suitable for field work (Crop-Weather, Kansas Agricultural Statistics). The information for these reports is provided by a sample of farmers in each of the nine crop reporting districts: northwest (NW), westcentral (WC), southwest (SW), northcentral (NC), central (C), southcentral (SC), northeast (NE), eastcentral (EC), and southeast (SE) (Figure 1). The reports are published from the first week in March through the first week in December. The days reported are those suitable for tillage and harvesting. This study used the reports published from 1982 through 1990 to calculate weekly averages of the number of days reported as suitable for field work.

Results

Table 1 shows the 1982 through 1990 average number of days suitable for field work for each district for each week. Figures 2 through 10 show these weekly averages for each district with a line drawn through them to smooth the week-to-week variability. The squares that lie above and below the lines in the figures show variability in days suitable for field work. The year-to-year variability causes the fluctuations in the averages, especially in the central and eastern districts.

Figure 1. Nine Crop Reporting Districts of Kansas

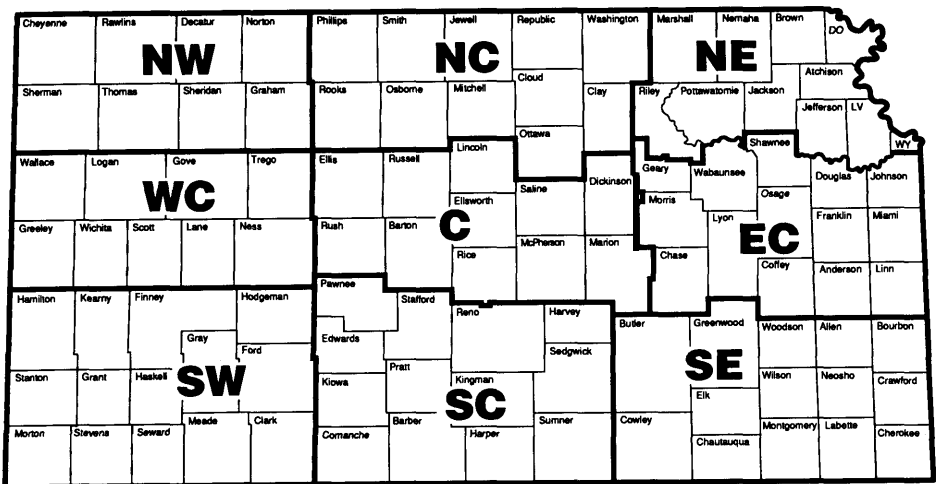


Table 1: Number of Days Suitable for Field Work by Crop Reporting District and Week (1982-90 average).

| Week no. | Week of | Crop Reporting District | | | | | | | | |
|----------|----------|-------------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| | | NW | WC | SW | NC | C | SC | NE | EC | SE |
| 10 | Mar. 5 | 3.0 | 3.9 | 3.9 | 3.5 | 4.6 | 4.1 | 4.0 | 2.2 | 2.1 |
| 11 | Mar. 11 | 3.2 | 3.4 | 3.9 | 1.6 | 3.2 | 1.6 | 1.9 | 1.6 | 1.3 |
| 12 | Mar. 19 | 3.5 | 3.4 | 3.7 | 4.0 | 2.7 | 2.0 | 2.3 | 1.5 | 1.4 |
| 13 | Mar. 26 | 3.7 | 3.7 | 3.8 | 3.6 | 3.1 | 3.1 | 3.0 | 1.8 | 1.6 |
| 14 | Apr. 2 | 4.2 | 3.1 | 4.5 | 2.9 | 3.6 | 3.2 | 2.8 | 1.6 | 1.7 |
| 15 | Apr. 9 | 3.4 | 4.2 | 4.9 | 3.4 | 3.9 | 3.3 | 2.7 | 2.6 | 2.8 |
| 16 | Apr. 16 | 4.0 | 4.1 | 4.8 | 3.5 | 4.2 | 3.7 | 3.7 | 3.8 | 3.3 |
| 17 | Apr. 23 | 4.6 | 5.1 | 5.5 | 4.1 | 4.7 | 4.8 | 4.9 | 4.3 | 4.7 |
| 18 | Apr. 30 | 3.1 | 3.8 | 4.3 | 3.1 | 3.5 | 3.3 | 3.9 | 3.3 | 3.6 |
| 19 | May 7 | 3.9 | 3.8 | 4.4 | 3.5 | 4.0 | 3.7 | 3.9 | 4.0 | 3.7 |
| 20 | May 14 | 3.1 | 4.1 | 4.5 | 3.0 | 3.6 | 3.4 | 3.5 | 3.2 | 3.5 |
| 21 | May 21 | 3.5 | 4.5 | 4.8 | 3.5 | 3.5 | 2.8 | 2.8 | 2.9 | 2.7 |
| 22 | May 28 | 3.5 | 3.7 | 4.5 | 3.6 | 3.5 | 3.1 | 3.1 | 3.3 | 3.5 |
| 23 | June 4 | 3.5 | 4.2 | 3.9 | 3.5 | 3.0 | 3.5 | 3.6 | 3.3 | 2.8 |
| 24 | June 11 | 4.0 | 4.7 | 4.8 | 4.4 | 3.9 | 4.4 | 4.2 | 4.1 | 3.8 |
| 25 | June 18 | 5.1 | 5.0 | 5.6 | 4.5 | 4.9 | 4.6 | 4.2 | 4.4 | 4.5 |
| 26 | June 26 | 4.6 | 5.0 | 5.0 | 4.7 | 4.0 | 3.8 | 3.7 | 4.1 | 4.1 |
| 27 | July 2 | 5.4 | 5.5 | 5.6 | 5.1 | 4.9 | 4.7 | 4.4 | 4.5 | 5.0 |
| 28 | July 9 | 5.7 | 5.6 | 5.9 | 5.5 | 5.7 | 5.6 | 5.5 | 5.5 | 5.9 |
| 29 | July 16 | 5.6 | 5.7 | 6.0 | 5.4 | 6.1 | 6.2 | 6.1 | 5.6 | 5.8 |
| 30 | July 23 | 5.5 | 5.6 | 6.2 | 5.6 | 6.0 | 6.4 | 6.2 | 6.1 | 6.2 |
| 31 | July 30 | 5.4 | 5.2 | 6.0 | 5.0 | 5.5 | 6.0 | 5.8 | 5.7 | 6.2 |
| 32 | Aug. 6 | 5.9 | 5.4 | 5.9 | 4.9 | 5.5 | 5.3 | 5.3 | 5.0 | 5.6 |
| 33 | Aug. 13 | 5.9 | 5.3 | 6.0 | 4.7 | 5.3 | 4.8 | 4.9 | 4.8 | 5.2 |
| 34 | Aug. 20 | 5.3 | 5.8 | 5.8 | 4.7 | 4.5 | 4.5 | 4.5 | 4.1 | 4.4 |
| 35 | Aug. 27 | 5.4 | 5.7 | 6.0 | 5.1 | 5.0 | 5.0 | 5.0 | 5.0 | 5.3 |
| 36 | Sept. 3 | 5.7 | 5.7 | 6.1 | 5.5 | 5.6 | 5.8 | 5.2 | 5.3 | 5.7 |
| 37 | Sept. 10 | 5.3 | 5.5 | 5.3 | 5.4 | 5.2 | 5.6 | 5.0 | 4.9 | 5.3 |
| 38 | Sept. 17 | 5.7 | 5.6 | 5.9 | 5.2 | 5.2 | 5.0 | 4.5 | 5.0 | 4.7 |
| 39 | Sept. 24 | 5.8 | 5.8 | 5.9 | 4.3 | 5.4 | 4.9 | 4.7 | 5.0 | 4.9 |
| 40 | Oct. 1 | 5.5 | 5.7 | 5.7 | 4.6 | 5.1 | 4.9 | 4.9 | 5.0 | 4.9 |
| 41 | Oct. 8 | 4.9 | 5.4 | 5.3 | 4.6 | 5.0 | 4.7 | 4.9 | 4.6 | 4.5 |
| 42 | Oct. 15 | 5.1 | 5.6 | 5.4 | 4.2 | 4.6 | 4.6 | 4.4 | 4.3 | 4.1 |
| 43 | Oct. 22 | 5.6 | 5.9 | 5.5 | 4.2 | 4.4 | 4.4 | 4.3 | 4.8 | 4.4 |
| 44 | Oct. 29 | 5.8 | 5.5 | 5.9 | 5.3 | 4.7 | 4.9 | 4.8 | 4.3 | 4.1 |
| 45 | Nov. 5 | 5.7 | 5.6 | 5.9 | 4.4 | 4.6 | 3.5 | 3.5 | 4.3 | 4.2 |
| 46 | Nov. 12 | 4.8 | 5.1 | 5.6 | 3.8 | 4.9 | 3.5 | 3.5 | 3.5 | 3.3 |
| 47 | Nov. 19 | 4.7 | 5.1 | 5.8 | 3.9 | 5.3 | 4.1 | 4.3 | 3.6 | 4.0 |
| 48 | Nov. 26 | 3.2 | 3.8 | 3.9 | 3.0 | 3.1 | 3.6 | 4.0 | 2.9 | 3.1 |
| 49 | Dec. 3 | 1.6 | 6.0 | 3.9 | 5.0 | 5.2 | 3.6 | 2.3 | 3.8 | 2.7 |

Figure 2. Number of Days Suitable for Field Work, Northwest Kansas

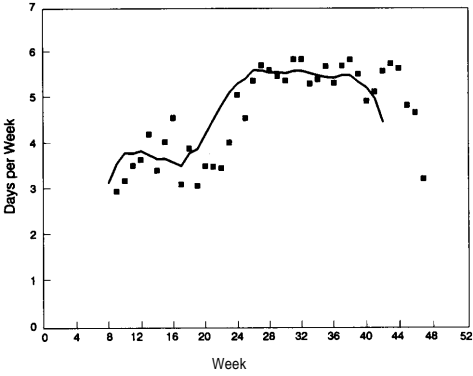


Figure 3. Number of Days Suitable for Field Work, Westcentral Kansas

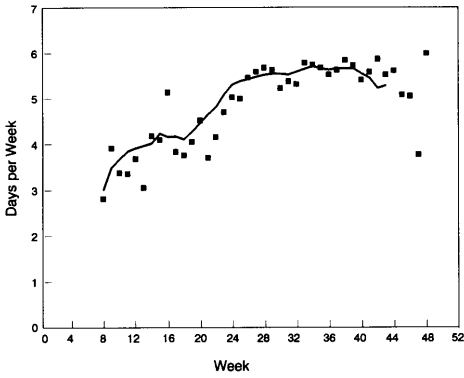


Figure 4. Number of Days Suitable for Fieldwork, Southwest Kansas

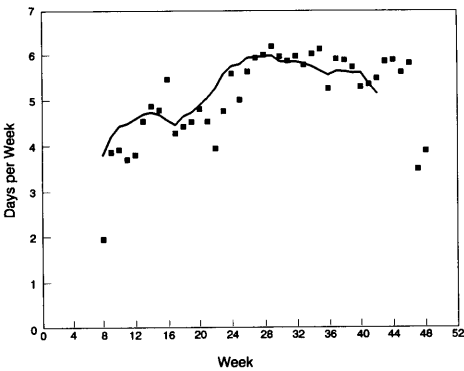


Figure 5. Number of Days Suitable for Field Work, Northcentral Kansas

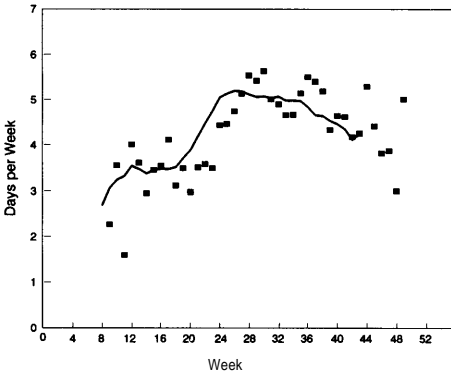


Figure 6. Number of Days Suitable for Field Work, Central Kansas

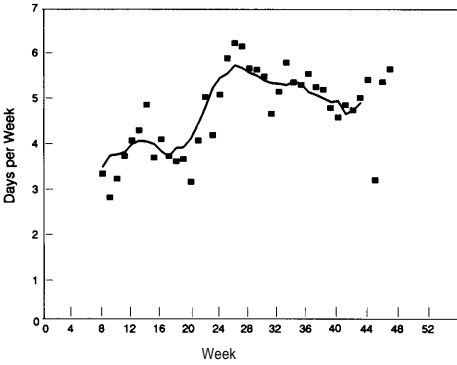


Figure 7. Number of Days Suitable for Field Work, Southcentral Kansas

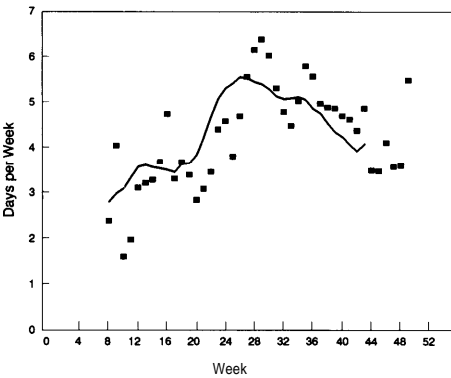


Figure 8. Number of Days Suitable for Field Work, Northeast Kansas

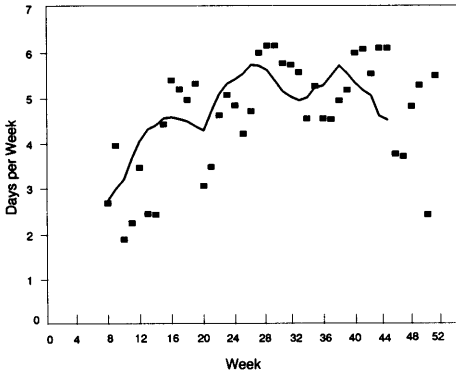


Figure 9. Number of Days Suitable for Field Work, Eastcentral Kansas

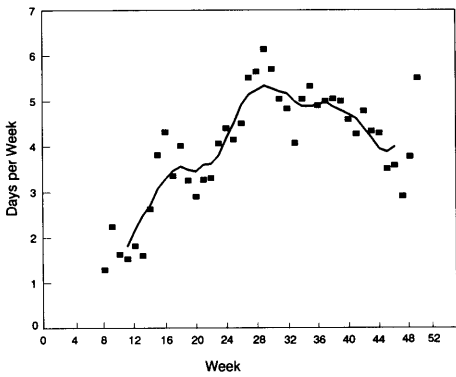
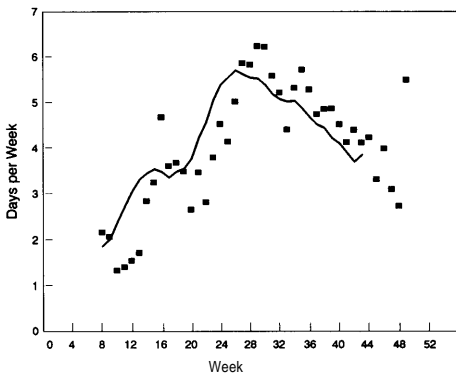


Figure 10. Number of Days Suitable for Field Work, Southeast Kansas



The central Kansas region is used to illustrate the use of the table and figures. The middle of June is usually a busy period when harvesting wheat, planting grain sorghum, and baling alfalfa hay are all done. From Table 1, you can see that June 11 is the beginning of week 24. Then in Figure 6, draw a line from week 24 on the horizontal axis up to the curved line and from that point draw a line across to the vertical axis. This shows that Central Kansas has about 5 days suitable for field work during week 24.

Kansas farmers can use the table and figures presented here to estimate the number of field workdays that will be available during planting and harvesting periods in their area. This information should help them to make wise decisions about crops and machinery.

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