1965

Corn Production Guide : A Summary of Recommendations

L. A. Derscheid

R. A. Cline

E. E. Sanderson

E. J. Langin

Follow this and additional works at: https://openprairie.sdstate.edu/extension_fact

Recommended Citation
https://openprairie.sdstate.edu/extension_fact/1441

This Fact Sheet is brought to you for free and open access by the SDSU Extension at Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. It has been accepted for inclusion in SDSU Extension Fact Sheets by an authorized administrator of Open PRAIRIE: Open Public Research Access Institutional Repository and Information Exchange. For more information, please contact michael.biondo@sdstate.edu.
CORN PRODUCTION GUIDE

A Summary of Recommendations

Published and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914, by the Cooperative Extension Service of South Dakota State University, Brookings, John T. Stone, Director, and the U. S. Department of Agriculture.

7.5M—3-65—2427
Information for this chart comes from L. A. Derscheid, R. A. Cline, E. E. Sanderson, E. J. Langin, Earl Adams, and K. R. Frost, of the Agronomy Department; and B. H. Kantack, of the Entomology Department. All of these men are specialists with the South Dakota State University Cooperative Extension Service.
**CORN PRODUCTION GUIDE**

**FERTILIZER RECOMMENDATIONS**

- **Table 1. Recommended Rates of Phosphorus**
  - **AROlffit**
  - **Medium Corn following soybeans; 5-10 tons of manure; 2nd year after alfalfa; Sweetclover less than 2 T /A; Corn following summer fallow.**
  - **Class Previous Management**
  - **Area**
  - **PHOSPHORUS**
  - **Broadcast**
  - 60
  - 50
  - 40
  - 30
  - 20
  - 10
  - 0
  - **Area**
  - **Organic High**
  - **Matter (lb / A)**
  - 60
  - 40
  - 20
  - 0
  - **Available phosphorus in the soil.**
  - **Previous cropping is used to group soils into nitrogen management classes (table 2) for aid in determining the amount of fertilizer needed.**
  - **Use fertilizer to supplement nutrients in the soil; use more on soils containing less than 2.5% organic matter and 15-40 pounds of available phosphorus, 0.5 lbs. of phosphate (P₂O₅), and 1 pound of potash (K₂O) for each additional bushel expected from phosphorus treatment.**

**NITROGEN**

- **Table 2. Recommended Nitrogen Fertilizer Rates**
  - **Class Previous Management**
  - **Organic High**
  - **Matter (lb / A)**
  - 5.7
  - 4.5
  - 3.1
  - 0.9
  - **Organic Medium**
  - **Matter (lb / A)**
  - 4.5
  - 3.1
  - 1.5
  - 0.3
  - **Organic Low**
  - **Matter (lb / A)**
  - 3.1
  - 1.5
  - 0.3
  - 0
  - **Available nitrogen in the soil (lb / A)**
  - 0-2.5
  - 2.5-4
  - 4 and over
  - **N management Class**
  - **Area**
  - **Organic High**
  - **Matter (lb / A)**
  - 40-55
  - 30-40
  - 25-35
  - 20-25
  - 15-20
  - 10-15
  - 5-10
  - 0-5

**CHEMICAL WEED CONTROL**

- **Table 3. Recommended Herbicide Rates**
  - **APPLICATION**
  - **Herbicidal Ester**
  - **Rate (lb / A)**
  - **2,4-D ester ¼-½**
  - 1.0
  - 0.5
  - 0.25
  - 0.125
  - **2,4-D amine**
  - 0.5
  - 0.25
  - 0.125
  - 0.062
  - **2,4-D**
  - 0.25
  - 0.125
  - 0.062
  - 0.031

**INSECT CONTROL**

- **CORN BORER**
  - Treatment of field corn for first brood will be profitable if 50-75% of the plants show leaf feeding in the shoot. This feeding injury will occur sometime after July 15th in North Dakota. Severe insect injury can be expected if 75% of the plants show leaf feeding at any time during the growing season. Insecticide treatments will be profitable when 50-75% of the leaves show leaf feeding injury. Corn borer injury may be present on the lower leaves and petiole of plants that are lower in the field. Insecticides are not effective when 50-75% of the leaves show leaf feeding injury.
  - **Chemical Insecticides**
  - **Rate (oz / A)**
  - 0.5
  - 0.25
  - 0.125
  - 0.062

**AREAS WHERE ORGANIC PHOSPHATE INSECTIDES ARE RECOMMENDED FOR CONTROL OF CORN ROOTWORM IN '65**

- **CORN ROOTWORM**
  - Treatment of field corn for first broad will be profitable if 50-75% of the plants show leaf feeding in the shoot. This feeding injury will occur sometime after July 15th in North Dakota. Severe insect injury can be expected if 75% of the plants show leaf feeding at any time during the growing season. Insecticide treatments will be profitable when 50-75% of the leaves show leaf feeding injury. Corn borer injury may be present on the lower leaves and petiole of plants that are lower in the field. Insecticides are not effective when 50-75% of the leaves show leaf feeding injury.

**SOUTH DAKOTA UNIVERSITY COOPERATIVE EXTENSION SERVICE**
CROP ADAPTATION AREAS
OF SOUTH DAKOTA
CORN PRODUCTION GUIDE

A Summary of Recommendations

Cooperative Extension Service

Published and distributed in furtherance of the Acts of Congress of May 8 and June 30, 1914, by the Cooperative Extension Service of South Dakota State University, Brookings, John T. Stone, Director, and the U.S. Department of Agriculture.

7.5M—3.65—2427