FUNGICIDES
FOR FIELD CROPS

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The fungicide information provided in this publication is intended only as a general guide. By law, it is the responsibility of the fungicide user to read and follow all current label directions. Label restrictions and fungicide recommendations may be different in each state and country because of variations in disease status and recommended use. The references to fungicides and recommendations for management included in this publication are not intended as endorsements to the exclusion of others that may be similar. Persons using such products assume responsibility for their use in accordance with current manufacturers' directions. The authors and contributors assume no liability resulting from the use of these products or recommendations.

This publication includes general information for common diseases of field crops that may be managed with fungicides and other practices. Tables may not include all diseases for all crops.

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Fungicides have been used in field crop production since the 1600s. Fungicide use was deemed revolutionary, however, by M. M. Tillet’s discovery in 1755 that seedborne fungi, such as the pathogen that causes wheat bunt (*Tilletia tritici*), could be managed with applications of lime to seed. This discovery changed our ability to manage important and economically devastating diseases. Since those early days of plant pathology, our knowledge and use of fungicides have developed substantially, spanning from the use of inorganic chemicals to new uses of organic and synthetic fungicides.

The goal of this publication is to provide an overview of the current knowledge of fungicides and their use on field crops. It is a combination and expansion of two previous publications: *Field Crop Fungicides for the North Central United States* (Mueller and Bradley, 2008), developed by the North Central IPM Center and the Cooperative State Research, Education, and Extension Service (CSREES), and *Using Foliar Fungicides to Manage Soybean Rust* (Dorrance et al., 2007), developed by the North Central Education/Extension Research Activities committee (NCERA 208) and the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA).

This new publication, *Fungicides for Field Crops*, combines past knowledge about fungicides with recent developments in the realm of field crop fungicides, such as the potential for development of fungicide resistance. In addition, it highlights the use of fungicides as key tools in the management of important diseases of field crops. However, this publication also focuses on the need to use fungicides responsibly to preserve their effectiveness and to recognize their effects on both people and the environment. In the coming years, our goal should be to expand on the foundation of information provided in this publication, building on the available knowledge of fungicides as new issues and technology develop.

Approximately 40 professionals from 20 universities and other organizations contributed content, images, and recommendations to the development of this publication. The result is a comprehensive treatment of fungicide use across major field crops, with consideration given to fungicide use and recommendations for specific crops. This publication is not intended to provide an exhaustive list of fungicides for use in managing every disease present on field crops. Moreover, references to fungicide use are intended to serve only as a guide for readers and may not include all relevant work on fungicides in field crops.

Even so, the editors believe that the thorough and dedicated work put forth by all of the contributors has resulted in an invaluable and timely publication. It will provide current and future agronomists and farmers not only with useful baseline information but also crop-specific information about fungicide use.

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