



WELCOME



maize

broader: [cereals](#)

other: [CIMMYT](#); [maize silage](#)

narrower: [sweetcorn](#)

Maize

This is part of the International Institute of Tropical Agriculture's (IITA) web site and provides information on maize and IITA maize research with links to relevant IITA documents. The Institute was formed in 1967 and is one of the 16 research centres which come under the auspices of CGIAR, the Consultative Group on International Agricultural Research.

[maize](#); [Zea mays](#);

[World maize facts and trends 1999/2000](#)

Written and published on the Web by the International Center for the Improvement of Maize and Wheat (CIMMYT), this report outlines maize facts, statistics and trends for 1999/2000, discussing the issues of meeting the world's maize needs, and assessing the benefits of international maize breeding research. The whole 60 page document, or its individual chapters, can be downloaded in PDF, requiring Adobe Acrobat Reader.

[statistics](#); [production economics](#); [maize](#); [food supply](#); [food consumption](#); [agricultural research](#); [Zea mays](#); [Developing Countries](#);

[Impacts of maize breeding research in Latin America 1966-1997](#)

Published on the Web by the International Center for the Improvement of Maize and Wheat (CIMMYT) in 1999, and reviewed in 2002, this document reports on the various maize breeding programmes between 1966 and 1997, analyses commercial seed sales and trends, and examines recent maize germplasm research and the factors that led to it. Chapter headings include: the maize economy of Latin America, maize research investment in Latin America, products of Latin American maize breeding programs, use of CIMMYT germplasm, and adoption of maize MVs. The document can either be downloaded as a whole, or each part individually in PDF, requiring Adobe Acrobat Reader. References and an executive summary are provided.

[seed industry](#); [plant breeding](#); [maize](#); [economic analysis](#); [breeding programmes](#); [agricultural research](#); [Zea mays](#); [Latin America](#);

[Heliothis in sweet corn](#)

Published on the Web by the Department of Primary Industries (DPI), Queensland Government, Australia, this document was authored in 2000 by Peter Deuter, Brendan Nolan, Tonia Grundy and Bronwyn Walsh, of the Queensland Horticulture Institute. The factsheet provides information on heliothis (*Helicoverpa armigera*), the most important insect pest of sweet corn. A description and life cycle of the pest is detailed, and pest management options are also outlined.

[plant pests](#); [maize](#); [Zea mays](#); [Helicoverpa armigera](#);

[Minimizing aflatoxin in corn](#)

Published on the Web by Mississippi State University Extension Service, this factsheet was authored by Dr. Erick Larson, an extension corn specialist, and is provided in HTML and PDF format (requiring Adobe Acrobat Reader). The document focuses on the control of aflatoxin in corn, particularly in Mississippi, where the climate there is suited to the growth of *Aspergillus flavus*, the fungus responsible for the toxin. The factsheet covers the causes of aflatoxin, management practices, harvest timing, storage, postharvest techniques, detection, and sampling and testing.

[maize](#); [fungus control](#); [aflatoxins](#); [Zea mays](#); [Mississippi](#); [Aspergillus flavus](#);

Managing insects attacking corn

Published on the Web by Mississippi State University Extension Service, this factsheet was revised by Dr. Scott Stewart, Entomology Specialist/Scientist, in cooperation with the Mississippi Agricultural and Forestry Experiment Station, U.S. Department of Agriculture, and the Division of Plant Industry of the Mississippi Department of Agriculture and Commerce. The document provides information on the pest control of insects that attack maize in Mississippi state, and covers insects below the ground, insects above the ground, and integrated control methods. Tables outlining insecticide-use guidelines are provided.

pest control; maize; insect pests; Zea mays; Mississippi;

Morphology and growth of maize

This is the International Institute of Tropical Agriculture Research Guide 9 (IRG 9), on the morphology and growth of maize, and was authored by Jennifer G. Kling and Gregory Edmeades in July 1997. Information is provided on maize, its growth stages, seedling growth, vegetative growth, flowering and fertilization, and grain filling. A bibliography and selection of study questions is provided. The IITA Research Guides provide information and guidance to "agricultural researchers, technicians, extension specialists, educators and students involved in research and training."

plant morphology; maize; growth; Zea mays;

Nutrition and quality of maize

This is the International Institute of Tropical Agriculture Research Guide 33 (IRG 33), on the nutrition and quality of maize, and was authored by Augustine E. Okoruwa and Jennifer G. Kling in March 1996. Information is provided on maize in human nutrition, maize as a source of essential nutrients, nutrition of maize-based diets, mycotoxins, measuring quality, and maize quality for specific end-use. A bibliography and selection of study questions is provided. The IITA Research Guides provide information and guidance to "agricultural researchers, technicians, extension specialists, educators and students involved in research and training."

nutritive value; nutrition; mycotoxins; maize; learning; crop quality; Zea mays;

Utilization and processing of maize

This is the International Institute of Tropical Agriculture Research Guide 35 (IRG 35), on the utilization and processing of maize, and was authored by Augustine E. Okoruwa in July 1997. Information is provided on the importance of maize utilization and processing, utilization of maize as animal feed, industrial utilization of maize, maize as human food, and traditionally processed maize products. A bibliography and selection of study questions is provided. The IITA Research Guides provide information and guidance to "agricultural researchers, technicians, extension specialists, educators and students involved in research and training."

utilization; processing; maize; Zea mays;

Genetically modified organisms (GMOs) : the significance of gene flow through pollen transfer

Published by the European Environment Agency in April 2002, this report looks at the significance of the transfer by pollen of genes from six major genetically modified (GM) crop types that are close to commercial release in the European Union. Oilseed rape, sugarbeet, potatoes, maize, wheat and barley are reviewed in detail to assess their potential environmental and agronomic impacts. The report also includes a short review of the current status of GM fruit crops in Europe. This 75 page report is provided in PDF, requiring Adobe Acrobat Reader.

wheat; transgenic plants; sugarbeet; rape; potatoes; pollen; maize; environmental impact; barley;

Bt corn and European corn borer

Produced and published on the Web by the University of Minnesota Extension service in April 2001, this paper provides information on the genetically modified corn variety Bt corn which contains a natural soil bacteria that functions as an insecticide, and its effect on managing the insect pest, European corn borer. The paper provides information on how and why the Bt corn variety was developed, how it controls European corn borer and other pests, the economic benefits, resistance, and key steps to implementing a resistance management plan. A glossary of terms is included.

transgenic plants; maize; insecticidal plants; corn; biotechnology; Ostrinia nubilalis;

Sweet corn production

Published on the Web by the Oklahoma Cooperative Extension Service of Oklahoma

State University, this fact sheet on sweet corn production was written in 2000 by Warren Roberts, Extension Vegetable specialist, et al. It provides information on production requirements, sites and soils, varieties, soil pH and fertiliser requirements, spacing and planting, weed control, insects, diseases, irrigation, and harvesting and handling. This document can also be viewed in PDF, requiring Adobe Acrobat Reader.

[sweetcorn](#); [maize](#); [crop production](#);

Maize diseases : a guide for field identification

Produced and published on the Web by the International Maize and Wheat Improvement Centre (CIMMYT), one of 16 research centres which are part of the CGIAR (Consultative Group on International Agricultural Research). This field guide is aimed at agricultural technicians and maize farmers, and provides colour photographs and descriptions of more than 50 diseases that affect maize crops, covering pathogens and symptoms. A diagnostic key is provided, which facilitates quick identification of disease and their effects. This 125 page document was produced by The CIMMYT Maize Program in 2003, and is provided in PDF, requiring Adobe Acrobat Reader. This is the 4th edition of the field guide.

[plant diseases](#); [maize](#);

Modeling temperature responses in wheat and maize

Published on the Web by the International Maize and Wheat Improvement Centre (CIMMYT), one of 16 research centres which are part of the CGIAR (Consultative Group on International Agricultural Research). This document provides access to a collection of papers presented at the third international modelling workshop, hosted by CIMMYT's Natural Resource Group in April 2001. Papers include: simulating response to temperature; evaluation and calibration of CERES3-Maize; a description of the model statistical package and weather analogue programme; and a comparison of approaches to modelling phenology as applied to genotype by sowing date interactions in wheat. This 61 page document is the proceedings of a CIMMYT workshop and was edited by Jeffrey W. White in 2003. It is provided in PDF, requiring Adobe Acrobat Reader.

[wheat](#); [temperature](#); [models](#); [maize](#);

Virus problems of sweet corn

Published on the Web by the Department of Plant Pathology, Cornell University as part of their site 'Vegetable MD Online' this document was authored by Thomas A. Zitter in 2001 and provides information on 2 of the key viruses that affect sweet corn. The fact sheet provides information on barley yellow dwarf virus and maize dwarf mosaic potyvirus, covering disease symptoms, aphid vectors and management guidelines. Colour images of diseased plants are provided.

[plant disease control](#); [maize dwarf mosaic virus](#); [maize](#); [barley yellow dwarf luteovirus](#);



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