

GLOBAL



ISSUES

BIOTECHNOLOGY AND GENETIC ENGINEERING

Part of the Global Issues series, *Biotechnology and Genetic Engineering* is designed to be a first-stop resource for research on a key challenge facing the world today. Each volume in the series contains three sections, beginning with an introduction that clearly defines the issue, followed by detailed case studies of the issue's affect in the United States and several other countries or regions. The second section draws together significant U.S. and international primary source documents, and the third section gathers useful research tools, such as brief biographies, facts and figures, an annotated bibliography, and more. A foreword written by an expert in the field complements each volume. A chronology, glossary, and index provide additional help.

Biotechnology is the manipulation of living organisms for the purpose of increasing their usefulness. This ancient practice began when societies selected certain crops to plant annually. In recent decades, however, advances in genetic engineering have forced people to reconsider the implications of biotechnology. Scientists can now alter the DNA of living organisms, which drastically changes the scope of biotechnology's capabilities. Although gene manipulation could address certain health concerns and engineered crops could be used to alleviate world hunger, there is significant concern about the ethical dilemmas, the possibility of discrimination and eugenics, and unforeseen environmental problems from such radical interference.

Biotechnology and Genetic Engineering expertly explains why biotechnology is a relevant and volatile issue. It begins with a history of biotechnology and its effect on agriculture, medicine, and the environment. The second chapter focuses on the United States, with emphasis on recent progress and new applications. Equal space is devoted to discussing the efforts of human-rights advocates, animal-rights advocates, and environmentalists to create definitive governmental regulations for this budding industry. The third chapter examines how biotechnology has affected the world, providing case studies of its history and its current role in Japan, India, Germany, and South Africa.

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