The Role of Seed Certification in the Seed Industry
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A major goal of the science of plant genetics and breeding is to release improved crop cultivars. The rapid increase of seed stocks of new and improved cultivars is essential to the success of modern agriculture. However, the production of adequate seed of new cultivars cannot be realized without an efficient seed production system. To be effective, such a system must produce seed of high quality and genetic purity that is readily available at a fair price.

The purpose of seed certification is to monitor the seed increase process to assure that genetic purity is maintained. The U.S. seed certification program is part of the Federal Seed Act but is carried out by individual state agencies, state departments of agriculture or crop improvement associations. These agencies are coordinated through the Association of Official Seed Certifying Agencies (AOSCA). Certified seed assures the buyer of the genetic identity and characteristics of the seed being purchased.

This special publication, The Role of Seed Certification in the Seed Industry, provides a comprehensive assessment of the seed certification system and its continued utility in the nation's genetic and plant breeding programs. The papers originate from a symposium at the 1984 annual meeting of the American Society of Agronomy and Crop Science Society of America. They provide a timely documentation of the history and current status of seed certification and a reassessment of its role in the seed industry.

The interest and cooperation of many organizations and individuals in the organization and conduct of the symposium is acknowledged. The support of the Association of Official Seed Certifying Agencies in publishing the book is specifically appreciated. The authors, reviewers, and editors are commended for their contributions.

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Preface

Seed certification plays a major role in the production of pedigreed seeds of most agricultural crops in the USA and Canada. From its inception early in this century, seed certification has grown steadily to its present impressive level. In 1984, seeds of over 2000 cultivars were certified, involving nearly 2 million hectares (5 million acres). Even a conservative estimate of the value of certified seed produced would place this above one billion dollars. And the value of crops produced from this seed would be many times that figure.

Throughout its growth, seed certification has been continually challenged to improve and expand its services, to keep abreast of changes in plant breeding, seed marketing, and farmer interest. Its record of growth suggests that it has been successful in accomplishing these objectives despite the often differing views of individual state certification agencies and their associated constituencies.

Yet, despite its past successes, seed certification may now be facing its most critical challenges. State and Federal experiment stations, long the source of new cultivars for certification, are shifting their emphases towards basic research and germplasm releases. Increasingly, new cultivars are being developed by private seed companies, some of which question the need for certification. And many seed companies are developing sophisticated quality control programs, some of which may duplicate or replace comparable services from certification agencies. At the same time, many state certification agencies may be limited by state seed laws and regulations, or by custom and practice, from exploring new services that may permit them to adapt to these changing needs.

What then is the current role of seed certification in the seed industry? And how might its role change in the future to better serve an increasingly sophisticated seed industry and farm public?

This publication focuses on these challenges. Authors were selected for their expertise in varied fields associated with seed certification. The first two authors address the history of seed certification, and its current status in the seed industry. Subsequent chapters view seed certification from the perspectives of a seed control official, a public plant breeder, a seed grower, and from seedmen serving both domestic and international markets. The final chapter examines the future of certification as seen by an experienced grower of certified seed.

These authors focus on past accomplishments, current challenges, and future opportunities. Their chapters present a unique sharing of diverse views. All agree that certification plays a strong role in today’s seed industry. Yet most view seed certification at a crossroads, where it must explore new directions and services if it is to continue to be an important participant in the seed industry of the future.

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This special publication, *The Role of Seed Certification in the Seed Industry*, is a product of a symposium presented at the 1984 annual meetings of the American Society of Agronomy in Las Vegas, NV. The symposium was sponsored jointly by Division C-4, Seed Physiology, Production, and Technology, and Division C-1, Crop Breeding, Genetics, and Cytology. The editors express appreciation to the authors, all of whom responded promptly to requests, and who were understanding in the conversion of papers designed for oral presentation into papers for publication. We are also grateful to Sherri Mickelson, associate editor for special publications of the American Society of Agronomy, for her capable and timely assistance. And we appreciate the encouragement and support provided by the Executive Committees of the American Society of Agronomy, the Crop Science Society of America, the American Seed Trade Association and the Association of Official Seed Certifying Agencies.

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