

## 中国小麦育种进展与展望

何中虎<sup>1,2</sup>, 夏先春<sup>1</sup>, 陈新民<sup>1</sup>, 庄巧生<sup>1\*</sup>

1 中国农业科学院作物科学研究所/国家小麦改良中心/国家农作物基因资源与基因改良重大科学工程, 北京100081; 2 CIMMYT中国办事处, 北京100081

## Progress of Wheat Breeding in China and the Future Perspective

HE Zhong-Hu<sup>1,2</sup>, XIA Xian-Chun<sup>1</sup>, CHEN Xin-Min<sup>1</sup>, ZHUANG Qiao-Sheng<sup>1\*</sup>

1 Institute of Crop Sciences / National Wheat Improvement Center / National Key Facility for Crop Gene Resources and Genetic Improvement, Chinese Academy of Agricultural Sciences (CAAS), Beijing 100081, China; 2 CIMMYT-China Office, c/o CAAS, Beijing 100081, China

摘要

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**摘要** 近10年我国小麦育种研究在3个方面取得新进展: 育成一批高产优质多抗新品种, 周8425B、鲁麦14和普通小麦-簇毛麦6VS/6AL易位系在全国小麦育种中发挥了重要作用, 育种技术研究也取得重要进展。但育种工作也存在4个主要问题。从育种角度评述分子标记辅助育种中连锁标记和功能标记的研究现状和存在的主要问题, 并提出今后的重点领域。概括小麦品质研究与育种密切相关的实用技术和方法, 即面包、面条和饼干品质育种中的品质评价方法和选择指标, 建议今后加强5个方面的工作。对未来小麦育种4个重要问题做了分析, 提出国内进一步加强高产潜力研究的初步设想, 建议加大持久抗性的研究力度, 重视抗旱、抗热及适应性等与气候变化相关性状的研究, 还分析了种业商业化等问题。

**关键词:** 育种 分子标记 产量潜力 加工品质 抗病性 普通小麦

**Abstract:** During the last ten years, Chinese wheat breeding has mainly made progresses in three aspects, i.e., (1) two sets of cultivars with high yielding potential, improved quality, and multi-resistance to various diseases were developed and extended, (2) three elite parents, viz. Zhou 8425B, Lumai 14, and 6VS/6AL translocation line played a leading role in cultivar development; and (3) a significant progress has been achieved in breeding methodology and applied research. Main constrains on wheat breeding were also summarized. The development and utilization of molecular markers such as SSR marker and functional maker, was reviewed from breeding point of view, and the priority areas for the next five to ten years were proposed. It summarized the progress of wheat quality study which is closely associated with cultivar development, including laboratory evaluation methods and selection criteria for pan bread, cookie, Chinese noodles and steamed bread. China's strategies for wheat breeding were analyzed in four areas: (1) a draft points on improving Chinese wheat yield potential; (2) utilization of durable resistance for cultivar development; (3) more efforts on water use efficiency, tolerance to high temperature and traits associated with broad adaptation due to the serious impact of climate change; and (4) increased investment in breeding and seed marketing from private sector.

**Keywords:** Breeding Molecular marker Yield potential Processing quality Disease resistance Common wheat

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Corresponding Authors: 何中虎, E-mail: zhhecaas@163.com, Tel: 010-82108547

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