

冬小麦、夏玉米一体化垄作的养分利用研究

马丽^{1,2}, 李潮海^{1*}, 赵振杰¹, 张学林¹

1 河南农业大学农学院, 农业部夏玉米区域技术创新中心, 河南郑州 450002; 2 中国农业大学农学与生物技术学院园艺植物研究所, 北京100193

Nutrients utilization of integrative ridge planting system of winter wheat and summer maize

MA Li^{1,2}, LI Chao-hai^{1*}, ZHAO Zhen-jie¹, ZHANG Xue-lin^{1*}

1 College of Agronomy, Henan Agricultural University/Regional Center for New Technology Creation of Corn of Ministry of Agriculture, Zhengzhou 450002, China; 2 Institute for Horticultural Plants, College of Agriculture and Biotechnology, China Agricultural University 100193, China

[摘要](#)[参考文献](#)[相关文章](#)Download: [PDF \(706KB\)](#) [HTML 1KB](#) Export: [BibTeX](#) or [EndNote \(RIS\)](#) [Supporting Info](#)

摘要 为比较不同栽培方式下冬小麦、夏玉米的养分利用效率, 于2005~2007年在河南省浚县农业科学研究所试验站, 采用大田试验, 研究了传统平作与垄作两种栽培方式下冬小麦、夏玉米的养分吸收及利用情况。结果表明, 与传统平作相比, 一体化垄作栽培, 有利于作物的养分吸收, 提高了产量和收获指数, 改善了土壤肥力。一体化垄作全年作物氮、磷、钾吸收量分别增加14.18%、9.20%和5.90%, 冬小麦、夏玉米收获指数分别提高2.13%和2.42%, 产量分别提高4.23%和9.61%, 全年产量平均提高7.33%。2年试验看出, 一体化垄作土壤肥力状况优于传统平作。

关键词: 冬小麦 夏玉米 垄作 养分吸收

Abstract: The nutrient uptake and utilization of winter wheat and summer maize under conventional flat planting and integrative ridge planting system were studied in the experimental plot of Xunxian Agricultural Science Research Institute during 2005–2007. Result showed that, comparing with that under the flat planting system, nitrogen, phosphorus and potassium uptake of winter wheat and summer maize increased under integrative ridge planting system by 14.18%, 9.20% and 5.90%, , harvest indexes increased by 2.13% and 2.42%, and yield increased by 4.23% and 9.61%, respectively. The yield of whole year was increased by 7.33% on average. The two-year experiment indicated that soil fertility could be improved under integrative of ridge culture compared to that of traditional flat culture.

Keywords: winter wheat summer maize ridge planting nutrient uptake

Received 2010-05-19; published 2011-02-21

Fund:

国家级项目

Corresponding Authors: 李潮海

引用本文:

马丽, 李潮海, 赵振杰, 张学林.冬小麦、夏玉米一体化垄作的养分利用研究[J] 植物营养与肥料学报, 2011,V17(2): 500-505

MA Li, LI Chao-hai, ZHAO Zhen-jie, ZHANG Xue-lin.Nutrients utilization of integrative ridge planting system of winter wheat and summer maize[J] Acta Metallurgica Sinica, 2011,V17(2): 500-505

Service

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [Email Alert](#)
- ▶ [RSS](#)

作者相关文章

- ▶ [马丽](#)
- ▶ [李潮海](#)
- ▶ [赵振杰](#)