

研究论文

## 气候变暖对甘肃冬油菜(*Brassica campestris* L.)种植的影响

蒲金涌<sup>1,2</sup>, 姚小英<sup>3</sup>, 邓振镛<sup>1</sup>, 姚玉璧<sup>4</sup>, 王位泰<sup>5</sup>, 张谋草<sup>5</sup>

1 中国气象局兰州干旱气象研究所/甘肃省干旱气候变化与减灾重点实验室, 甘肃兰州730020 2 甘肃省天水农业气象试验站, 甘肃天水741020 3 甘肃省天水市气象局, 甘肃天水741020 4 甘肃省定西市气象局, 甘肃定西743000 5 甘肃省西峰农业气象试验站, 甘肃庆阳745000

收稿日期 2005-8-5 修回日期 网络版发布日期 2006-8-15 接受日期 2006-1-25

**摘要** 20世纪50年代以来, 全球性的气候变暖极大地影响了农业种植结构。甘肃冬油菜的种植面积、产量水平等也发生了较大变化。为探讨气候变暖对冬油菜(白菜型)种植的影响, 本文运用甘肃省河东地区16个气象站1961—2003年≥0℃积温、冬油菜种植面积及物候期观测资料, 应用数理统计方法分析研究表明, 80年代以来, 由于气候变暖, 甘肃省冬油菜种植带向北扩展约100 km, 种植海拔高度向上提高了100~200 m; 冬油菜整个生育期缩短17~32 d; 单产水平有所提高。

**关键词** 气候变暖 冬油菜

**分类号** S565

## Impact of Climate Warming on Winter Rape Planting in Gansu Province

PU Jin-Yong<sup>1,2</sup>, YAO Xiao-Ying<sup>3</sup>, DEN Zhen-Yong<sup>1</sup>, YAO Yu-Bi<sup>4</sup>, WANG Wei-Tai<sup>5</sup>, ZHANG Mou-Cao<sup>5</sup>

1 Lanzhou Institute of Arid Meteorology, China Meteorological Administration/Key Laboratory of Arid Climate Change and Reducing Disaster of Gansu Province, Lanzhou 730020, Gansu; 2. The Agrometeorological Experimental Station of Tianshui, Tianshui 741020, Gansu; 3 The Tianshui Meteorological Bureau, Tianshui 741020, Gansu; 4 The Dingxi Meteorological Bureau, Dingxi 743000, Gansu; 5 The Agrometeorological Experimental Station of Xifeng, Qingsyang, 745000, Gansu, China

**Abstract** The structure of agricultural planting has been influenced by global climate warming since 1950s, causing a lot of changes in the planting area and output of winter rape. In this research, the data from 16 weather stations on accumulated temperature(  $\geq 0^{\circ}\text{C}$ ), winter rape planting area, yield, and phonological observation in the East Parts of the Yellow River valley in Gansu were analyzed with the methods of mathematical statistics. The results showed that for winter rape, the planting area was extended about 100 km northwards, 100 – 200 m high above sea level (Fig.2) and the whole growth periods shorted 17 – 32 days (Table 2), the yield also improved under climate warming.

**Key words** [Climate warming](#) [Winter rape](#)

DOI:

通讯作者 蒲金涌 [pujinyong6@163.com](mailto:pujinyong6@163.com)

### 扩展功能

#### 本文信息

[Supporting info](#)

[PDF\(430KB\)](#)

[\[HTML全文\]\(0KB\)](#)

[参考文献](#)

#### 服务与反馈

[把本文推荐给朋友](#)

[加入我的书架](#)

[加入引用管理器](#)

[复制索引](#)

[Email Alert](#)

[文章反馈](#)

[浏览反馈信息](#)

#### 相关信息

[本刊中包含“气候变暖”的相关文章](#)

[本文作者相关文章](#)

· [蒲金涌](#)

· [姚小英](#)

· [邓振镛](#)

· [姚玉璧](#)

· [王位泰](#)

· [张谋草](#)