



2019年第3期总170期

# 粮食和食物安全专题

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## ▶ 前沿资讯

### 1. Cotton and rice have an important place in the Murray Darling Basin (棉花和水稻在墨累达令流域具有重要作用)

简介: The widespread deaths of fish in the Darling River with more predicted to come has raised serious questions about the allocation of water between agriculture and the environment. Water-hungry crops like cotton and rice are also raising eyebrows: are they worth growing in the Murray Darling Basin? The situation is a little more complicated than it may appear. Cotton and rice need plenty of water, but they might actually be some of the best crops to help cope with a rapidly changing climate.

来源: The conversation

发布日期: 2019-01-16

全文链接:

<https://theconversation.com/cotton-and-rice-have-an-important-place-in-the-murray-darling-basin-109953>

### 2. Russian Bear Tightens Grip on Wheat Market (俄罗斯紧握小麦市场)

简介: Russia has surprised markets for the second year in a row with wheat supplies and exports topping expectations. But recent gains in Russian wheat prices suggest the country might finally be giving up its competitive dominance. Wheat exports from Russia have been on a tear. Exports maintained a record pace for each of the first six months of the current marketing year, which began in July. That followed huge supply and better-than-expected export capacity in 2017/18. The country's abundance has kept a lid on world wheat prices, and led to a steep buildup of US wheat stocks, which were priced out of the market. Traders kept wondering when the Russian juggernaut would finally slow down. Russia briefly lost its status as the world's cheapest origin, missing out on a December round of purchases by Egypt's General Authority for Supply Commodities (GASC), the world's largest importer of wheat. Wheat from Ukraine and Romania underpriced Russian supplies and it was the first time since August that no Russian wheat was purchased. The most recent round of GASC purchases on Jan. 9 returned to Russian origin, so the competition looks to continue for a while longer.

来源: GRO

发布日期: 2019-01-16

全文链接:

[https://gro-intelligence.com/insights/russian-bear-tightens-grip-on-wheat-market?utm\\_campaign=January%202019%20content%20emails&utm\\_source=hs\\_email&utm\\_medium=email&utm\\_content=69044918&hsenc=p2ANqtz--ipsSAXzcJEh1PHVtuWS0d7M VrhYFYwhieYKsAsPCoXXFBZm9sUjiztqL1v6A9AYpIT\\_jqzNGOtNmJlMSWs3RMr2ganQ&hsmi=69044918](https://gro-intelligence.com/insights/russian-bear-tightens-grip-on-wheat-market?utm_campaign=January%202019%20content%20emails&utm_source=hs_email&utm_medium=email&utm_content=69044918&hsenc=p2ANqtz--ipsSAXzcJEh1PHVtuWS0d7M VrhYFYwhieYKsAsPCoXXFBZm9sUjiztqL1v6A9AYpIT_jqzNGOtNmJlMSWs3RMr2ganQ&hsmi=69044918)

### 3. Reclaiming lost calories: Tweaking photosynthesis boosts crop yields (寻回失去的卡路里：提高光合作用促进粮食生产)

简介：What if your ability to feed yourself was dependent on a process that made a mistake 20 percent of the time? We face this situation every day. That's because the plants that produce the food we eat evolved to solve a chemistry problem that arose billions of years ago. Plants evolved to use carbon dioxide to make our food and the oxygen we breathe—a process called photosynthesis. But they grew so well and produced so much oxygen that this gas began to dominate the atmosphere. To plants, carbon dioxide and oxygen look very similar, and sometimes, plants use an oxygen instead of carbon dioxide. When this happens, toxic compounds are created, which lowers crop yields and costs us 148 trillion calories per year in unrealized wheat and soybean yield—or enough calories to feed an additional 200 million people for a whole year.

来源：The conversation

发布日期：2019-01-04

全文链接：

<https://theconversation.com/reclaiming-lost-calories-tweaking-photosynthesis-boosts-crop-yields-109283>

## 学术文献

### 1. Contribution of the methodology of collective expertise to the mitigation of food safety hazards in low- or medium-income countries (集体智慧的方法论贡献对解决中低收入国家食物安全问题的贡献)

简介：Food safety and quality is a major political topic due to numbers of deaths and hospitalizations all over the world due to food contamination, due to the increasing concern of consumers with public health related issues, due to increasing complexity of internationalization of food chains, along with the stronger sanitary standards set for international trade. Many constraints can explain the delays in the establishment of measures to prevent and control of food contaminants throughout the food value chains. Therefore, the availability of simplified tools that can be used to mitigate food safety hazards in low- and middle-income countries is a high priority internationally. The proposal addressed in this manuscript is to use the existing knowledge in local universities, private companies, citizen's organizations and to translate its proposals and scientific/technical advices to the national authorities, in a low cost manner. This translation is done by what is described here as Collective Expertise. Collective Expertise, can be a very powerful way to develop local strategies to solve problems and face the challenges of food safety and food security.

来源：Food Control

发布日期：2018-12-20

全文链接：

[http://agri.ckcest.cn/file1/M00/06/5C/Csgk0Fw\\_5-AIwc1AA0KpUsa7Bg895.pdf](http://agri.ckcest.cn/file1/M00/06/5C/Csgk0Fw_5-AIwc1AA0KpUsa7Bg895.pdf)

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## 2. A reassessment of the Global Food Security Index by using a hierarchical data envelopment analysis approach (使用等级化数据包络分析法重新评估全球食物安全指数)

简介: This study proposes a hierarchical data envelopment analysis (H-DEA) approach to construct a multi-dimensional indicator, and applies it to reassess the 2014 Global Food Security Index created by the Economist Intelligence Unit (EIU) across 110 countries. Instead of using expert opinions to assign weights, the proposed model endogenises the weights, and thus avoids the problems of subjective weighting for international comparisons. The results show that although the ranking is not significantly different from that of the EIU, the optimal scores and weights differ by income levels. Additionally, this work articulates the value of a well-founded performance evaluation method by leveraging experts' opinions and data-driven techniques through constructing a best-practice frontier with observation-specific weights. It is suggested that food availability should be the top policy priority in low- to medium-income and Sub-Saharan African countries where food deficits are most prevalent. The findings can serve as guidance to improve the design of the ongoing efforts for global food security.

来源: European Journal of Operational Research

发布日期: 2018-07-06

全文链接:

[http://agri.ckcest.cn/file1/M00/06/5C/Csgk0Fw\\_5dmAAj86AAg0yKik1Qs675.pdf](http://agri.ckcest.cn/file1/M00/06/5C/Csgk0Fw_5dmAAj86AAg0yKik1Qs675.pdf)