



2023年第3期总378期

## 粮食和食物安全专题

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## ▶ 前沿资讯

### 1 . Meet the Farmer Helping Black Kentuckians Return to Their Agricultural Roots (认识帮助肯塔基州黑人回归农业根源的农民)

简介: The initiatives of one burgeoning social enterprise give Black-owned farms a platform while connecting them to a wider swath of locals and visitors. “Produce with a purpose” is how Ashley Smith describes her vision for Black Soil, the agribusiness she co-founded that links individuals and families with Black growers and producers across Kentucky. Smith says it evokes a sense of nostalgia and pride of place. “These moments actively bring to life our mission of taking them back to their heritage and legacy in agriculture,” says Smith. In the early twentieth century, 15 percent of America’s farms were Black-owned. Today, of the nearly 76,000 farms in Kentucky, only 1.4 percent roughly 600 are owned by Black farmers. Black Soil aims to face this disparity head on.

来源: modern farmer

发布日期: 2023-01-19

全文链接:

<http://agri.ckcest.cn/file1/M00/03/48/Csgk0YgW4oyATvtMAHxich4X05c336.pdf>

### 2 . Grain Farming Goes Indoors (谷物种植进入室内)

简介: “The war in Ukraine and the spiked wheat prices in response have shown that it’s always a good idea to source and produce wheat locally, not just for cost and security but also just the miles traveled and carbon impact,” says Smith. In addition to the mobility of indoor farms, vertical farming has the capacity to grow food with 95% less water and 97% less land, according to the USDA, and with no pesticides. There is also the potential for more renewable energy sources; In farm currently uses 70 percent green-certified energy, with the goal of becoming net-zero by 2045. There are a few distinct paths we can take to fortify the food ecosystem, including repairing our depleted soil to create a more sustainable ecosystem, and utilizing indoor farming technology to create new means of food production. The ability to grow these critical crops indoors is a huge step forward towards the goal of global food security.

来源: modern farmer

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[http://agri.ckcest.cn/file1/M00/10/1A/Csgk0GPAJ10Aer6jAG5BJI-tM\\_w925.pdf](http://agri.ckcest.cn/file1/M00/10/1A/Csgk0GPAJ10Aer6jAG5BJI-tM_w925.pdf)

## ▶ 学术文献

### 1 . Invasiveness, biology, ecology, and management of the fall armyworm, *Spodoptera frugiperda* (草地贪夜蛾的入侵性、生物学、生态学和管理)

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**简介:** The fall armyworm (FAW), *Spodoptera frugiperda* (JE Smith, 1797), is a serious pest of several crops, particularly maize and other cereals. It has long been known as a pest in the Americas and has invaded most of Africa and parts of the Middle East, Asia, and Australia in the last six years. Its new status as an invasive species causing serious damage in many regions worldwide has highlighted the need for better understanding and has generated much research. In this article, we provide a comprehensive review of FAW covering its (i) taxonomy, biology, ecology, genomics, and microbiome, (ii) worldwide status and geographic spread, (iii) potential for geographic expansion and quarantine measures in place, and (iv) management including monitoring, sampling, forecasting, biological control, biopesticides, agroecological strategies, chemical control, insecticide resistance, effects of insecticides on natural enemies, as well as conventional and transgenic resistant cultivars. We conclude with recommendations for research to enhance the sustainable management of FAW in invaded regions.

**来源:** rural 21

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<http://agri.ckcest.cn/file1/M00/10/1A/Csgk0GPAN0yAD5fUAFIB2I5Qpog012.pdf>

## ➤ 相关成果

### **1 . CABI study: comprehensive review of fall armyworm pest (CABI研究: 草地贪夜蛾害虫综合评价)**

**简介:** A CABI-led study involving 57 scientists from 46 different institutions has provided a comprehensive review of the devastating fall armyworm (*Spodoptera frugiperda*) including details on its invasiveness, biology, ecology and management. A recent study, published last October in the journal *Entomologia Generalis*, highlights how fall armyworm (FAW) is a serious pest of several crops particularly maize and other cereals and has already invaded most of Africa and parts of the Middle East, Asia, and Australasia in the last six years. CABI is an inter-governmental, not-for-profit organisation established by a United Nations treaty-level agreement between 49 Member Countries. Dr Marc Kenis, CABI's Head of Risk Analysis and Invasion Ecology, based at CABI's centre in Switzerland, is lead author of the paper which also offers recommendations for research to enhance the sustainable management of FAW in invaded regions. FAW feeds on and develops on the leaves, stems and reproductive parts of over 350 plant species, primarily Poaceae, causing serious economic damage to key food crops (e.g. maize, sorghum, rice, soybean) and fibre crops (e.g. cotton). It originates from tropical and subtropical areas of the Americas.

**来源:** rural 21

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<http://agri.ckcest.cn/file1/M00/03/48/Csgk0YgW61eAT872AAz8DR0hFoM345.pdf>

## 2 . Just rewards, or just rewarding business-as-usual? (只是奖励，还是只是奖励一切照旧?)

简介: Big sums of money are flowing into food and farming, but it is still going to the wrong places. A recent UN report points to the vast majority of agricultural subsidies being environmentally harmful. Fertiliser subsidies are also damaging the environment and depleting public budgets, while 'green' investment is failing to materialise. Funding for truly transformative initiatives — from agroecological research to short supply chains — is still badly lacking. Our author argues that finance as we know it can't fix the food system. Instead, bigger changes in our food systems and economic systems — changes that shift power relations — are required. As 2022 draws to a close, with nearly 50 million people facing acute hunger and 45 countries in need of food assistance, global food systems are clearly at breaking point. Anyone seeking to defend 'business-as-usual' must confront a number of increasingly harsh realities — that global food supply chains and food security are fragile; that environmental breakdown is decimating harvests; that sustainable agriculture is key to restoring biodiversity, adapting to climate change, alleviating poverty and rebuilding food security; and that billions of dollars are needed to accelerate the transition to sustainable food and farming systems. The good news is that there are considerable sums of money already flowing into food systems, and multiple levers to pull on. However, it is also clear that many of these incentive systems are still pointing in the wrong direction.

来源: rural 21

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