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▶ 前沿资讯

1. Mombasa Auction Upgrading to Digital Transactions (肯尼亚蒙巴萨茶叶拍卖升级到数字交易)

简介：东非茶叶贸易协会(EATTA)宣布了一项耗资150万美元的升级计划，该计划将使世界上交易量最大的茶叶拍卖首次实现自动化。2019年2月26日，EATTA副主席Gideon Mugo表示，技术人员正处于推出一款原型机的最后阶段，该原型机将“使拍卖过程完全电脑化”。由190名交易商组成的非政府组织东非茶叶贸易协会(EATTA)于1956年成立，负责此次拍卖。根据该标准的一份报告，这项工作将在未来几个月内完成。将竞标扩大到包括在线买家，预计将缓解农民因生产过剩而导致的收入下降。全球拍卖报告降低了仓储成本，提高了透明度。

来源：World Tea News 网站

发布日期:2019-03-04

全文链接：<http://agri.ckceest.cn/file1/M00/06/60/Csgk0FyO-vCAUK6xAATqCQgRiDg361.pdf>

2. Iran Sanctions Hurt Kenya's Tea Industry (伊朗制裁损害了肯尼亚的茶业)

简介：U.S. sanctions imposed to punish Iran are harming Kenya tea growers and exporters. Iran is an important trading partner, paying good prices for large orders of Kenya's tea. When a previous round of sanctions was lifted in 2016 exports surged and profits rose for traders supplying CTC (cut, tear, curl) to Iran's 80 million tea drinkers. Last week the Kenya Tea Development Agency (KTDA) said earnings are down 17 percent due in part to financial restrictions reinstated in November 2018.

来源：World Tea News 网站

发布日期:2019-02-11

全文链接：http://agri.ckceest.cn/file1/M00/06/61/Csgk0FyR27eAbV7_AAZ6l2PhmEs595.pdf

▶ 学术文献

1. An update of the Worldwide Integrated Assessment (WIA) on systemic insecticides. Part 3: alternatives to systemic insecticides (关于内吸性杀虫剂的全球综合评估(WIA)的最新进展 第3部分:内吸性杀虫剂的替代品)

简介：Over-reliance on pesticides for pest control is inflicting serious damage to the environmental services that underpin agricultural productivity. The widespread use of systemic insecticides, neonicotinoids, and the phenylpyrazole fipronil in particular is assessed here in terms of their actual use in pest management, effects on crop yields, and the development of pest resistance to these compounds in many crops after two decades of usage. Resistance can only be overcome in the longterm by implementing methods that are not exclusively based on synthetic pesticides. A diverse range of pest management tactics is already available, all of which can

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achieve efficient pest control below the economic injury level while maintaining the productivity of the crops. A novel insurance method against crop failure is shown here as an example of alternative methods that can protect farmer's crops and their livelihoods without having to use insecticides. Finally, some concluding remarks about the need for a new framework for a truly sustainable agriculture that relies mainly on natural ecosystem services instead of chemicals are included; this reinforcing the previous WIA conclusions (van der Sluijs et al. Environ Sci Pollut Res 22:148-154, 2015).

来源: Environmental Science and Pollution Research 期刊

发布日期: 2018-02-25

全文链接: <http://agri.ckcest.cn/file1/M00/06/60/Csgk0FyQluWALr8pAAzzVY7kCyA487.pdf>

2. First evidence of acoustic communication in the pear psyllid *Cacopsylla pyri* L. (Hemiptera: Psyllidae) (梨木虱 (*Cacopsylla pyri*) 声音传播的第一个证据 (半翅目: 木蚤科))

简介: A number of species of the family Psyllidae, commonly called jumping plant lice, are economically important as vectors of pathogenic phytoplasmas in fruit crops. Pear psyllids of the species *Cacopsylla pyri* (L. 1758) (Psyllidae) are the most damaging pest of pear trees in Europe. These phloem feeding insects transmit pear decline, a disease caused by the phytopathogenic bacterium *Candidatus Phytoplasma pyri*. Knowledge of the signals used for intraspecific communication, especially during mating behavior, is essential to design ecological control strategies against this vector insect. Here, we report the first recordings of acoustic signals emitted by male and female *C. pyri*. We also observed the establishment of an acoustic duet between an interacting couple prior to mating. Furthermore, we found potentially sound producing stridulatory organs in male and female individuals of *C. pyri*. The acoustic signals recorded are described and presented. Possible stridulatory organs are depicted as scanning electron microscopy pictures. The implications of these findings for potential applications in pest control are discussed.

来源: Journal of Pest Science 期刊

发布日期: 2015-03-20

全文链接: <http://agri.ckcest.cn/file1/M00/06/60/Csgk0FyQnLiAUjuRADyoag0mCTo680.pdf>

3. Chapter 5 Adaptive Sounds and Silences: Acoustic Anti-Predator Strategies in Insects (第5章 适应性声音和寂静: 昆虫的声学抗捕食策略)

简介: There has been a recent resurgence of interest in the evolution of adaptive coloration and a new appreciation of the mechanisms, functions, and evolution of crypsis, aposematic coloration, and mimicry. I here apply these principles to the acoustic modality using insect examples and discuss adaptive silence, acoustic crypsis, stealth, acoustic aposematism, acoustic mimicry, and sonar jamming. My goal is to inspire students of bioacoustics to explore the full richness of the acoustic interactions between predator and prey in behavioral, physiological, and evolutionary contexts similar to those used by visual ecologists.

来源: Insect Hearing and Acoustic Communication 图书

发布日期:2014-01-20

全文链接:<http://agri.ckcest.cn/file1/M00/06/61/Csgk0FyQsDWAVzk6AAUIrX7cQRY796.pdf>

4 . Chapter 4 Auditory Parasitoid Flies Exploiting Acoustic Communication of Insects (第4章 具有听觉的寄生蝇利用昆虫的声学传播)

简介: Hearing evolved in flies of both Dipteran families Tachinidae and Sarcophagidae, enabling the parasitic exploitation of singing *orthoptera* and *hemiptera*. Guided by acoustic communication signals, these flies identify and localise their singing target, depositing their larvae on or near the host. Larvae then develop as endoparasites, eventually killing the host. In these flies, the mechanosensory auditory organ is located on the prosternum and in most cases is less than one millimetre in size. The frontal facing tympana constitute an extreme example of adaptation in auditory micromechanics. Directional hearing relies on the mechanical coupling between the hemilateral tympana, a purely mechanical process that exploits minute interaural time differences in tympanic vibrations and enhances bilateral oscillation differences to generate a highly directional sensitivity. In tachinid fly species, the frequency response of the ears is adapted to the host communication signals. The auditory organs contain up to 250 scolopidial afferents, which are directly driven by tympanic membrane vibrations. The signals from the auditory afferents are forwarded to auditory neuropils in the three thoracic neuromeres. Further processing of intensity and directional information and also of temporal patterns involves local and also ascending auditory interneurons, which project up to the brain for final sensory-motor integration.

来源: Insect Hearing and Acoustic Communication 图书

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