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茶学研究专题

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学术文献

1. Use of habitat odour by host-seeking insects (寻找寄主的昆虫对栖息地气味的利用)

简介: Locating suitable feeding or oviposition sites is essential for insect survival. Understanding how insects achieve this is crucial, not only for understanding the ecology and evolution of insect-host interactions, but also for the development of sustainable pest-control strategies that exploit insects' host-seeking behaviours. Volatile chemical cues are used by foraging insects to locate and recognise potential hosts but in nature these resources usually are patchily distributed, making chance encounters with host odour plumes rare over distances greater than tens of metres. The majority of studies on insect host-seeking have focussed on short-range orientation to easily detectable cues and it is only recently that we have begun to understand how insects overcome this challenge. Recent advances show that insects from a wide range of feeding guilds make use of 'habitat cues', volatile chemical cues released over a relatively large area that indicate a locale where more specific host cues are most likely to be found. Habitat cues differ from host cues in that they tend to be released in larger quantities, are more easily detectable over longer distances, and may lack specificity, yet provide an effective way for insects to maximise their chances of subsequently encountering specific host cues. This review brings together recent advances in this area, discussing key examples and similarities in strategies used by haematophagous insects, soil-dwelling insects and insects that forage around plants. We also propose and provide evidence for a new theory that general and non-host plant volatiles can be used by foraging herbivores to locate patches of vegetation at a distance in the absence of more specific host cues, explaining some of the many discrepancies between laboratory and field trials that attempt to make use of plant-derived repellents for controlling insect pests.

来源: Biological Reviews 期刊

发布日期: 2017-05-20

全文链接: <http://agri.ckcest.cn/file1/M00/06/6F/Csgk0Fz4vTWAPQX5AAQj33SSvvc544.pdf>

2. Consumption of Green Tea, but Not Black Tea or Coffee, Is Associated with Reduced Risk of Cognitive Decline (饮用绿茶而不是红茶或咖啡, 与降低认知衰退的风险相关)

简介: Our objective was to determine whether the consumption of green tea, coffee, or black tea influences the incidence of dementia and mild cognitive impairment (MCI) in older people. We conducted a population-based prospective study with Japanese residents aged >60 years from Nakajima, Japan (the Nakajima Project). Participants received an evaluation of cognitive function and blood tests. The consumption of green tea, coffee, and black tea was also evaluated at baseline. Of 723 participants with normal cognitive function at a baseline survey (2007/2008), 490 completed the follow up survey in 2011/2013. The incidence of dementia during the follow-up period (mean \pm SD: 4.9 \pm 0.9 years) was 5.3%, and that of MCI was 13.1%. The multiple-adjusted odds ratio for the incidence of overall cognitive decline (dementia or MCI) was 0.32 (95% CI: 0.16-0.64) among individuals who consumed green tea every day and 0.47 (95% CI: 0.25-0.86) among those who consumed green tea 16 days per week compared with individuals who did not

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consume green tea at all. The multiple-adjusted odds ratio for the incidence of dementia was 0.26 (95% CI: 0.061, 0.06) among individuals who consumed green tea every day compared with those who did not consume green tea at all. No association was found between coffee or black tea consumption and the incidence of dementia or MCI. Our results indicate that green tea consumption is significantly associated with reduced risk of cognitive decline, even after adjustment for possible confounding factors.

来源: PLoS One 期刊

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全文链接: <http://agri.ckcest.cn/file1/M00/06/6F/Csgk0Fz4vTWAY9huAAMx64iMRUM727.pdf>

3. Green tea consumption and the risk of incident functional disability in elderly Japanese: the Ohsaki Cohort 2006 Study (2006年Ohsaki团队研究: 日本老年人饮用绿茶与发生功能性残疾的风险)

简介: Background: Previous studies have reported that green tea consumption is associated with a lower risk of diseases that cause functional disability, such as stroke, cognitive impairment, and osteoporosis. Although it is expected that green tea consumption would lower the risk of incident functional disability, this has never been investigated directly.

Objective: The objective was to determine the association between green tea consumption and incident functional disability in elderly individuals.

Design: We conducted a prospective cohort study in 13,988 Japanese individuals aged ≥ 65 y. Information on daily green tea consumption and other lifestyle factors was collected via questionnaire in 2006. Data on functional disability were retrieved from the public Long-term Care Insurance database, in which subjects were followed up for 3 y. We used Cox proportional hazards regression analysis to investigate the association between green tea consumption and functional disability.

Results: The 3-y incidence of functional disability was 9.4% (1316 cases). The multiple-adjusted HR (95% CI) of incident functional disability was 0.90 (0.77, 1.06) among respondents who consumed 1-2 cups green tea/d, 0.75 (0.64, 0.88) for those who consumed 3-4 cups/d, and 0.67 (0.57, 0.79) for those who consumed ≥ 5 cups/d in comparison with those who consumed < 1 cup/d (P-trend < 0.001). Conclusion: Green tea consumption is significantly associated with a lower risk of incident functional disability, even after adjustment for possible confounding factors.

来源: American Journal of Clinical Nutrition 期刊

发布日期: 2012-03-25

全文链接: <http://agri.ckcest.cn/file1/M00/06/6F/Csgk0Fz4vTWAP8WPAAJt6tsjutQ316.pdf>

4. Molecular properties that influence the oral bioavailability of drug candidates (影响候选药物口服生物利用度的分子特性)

简介: Oral bioavailability measurements in rats for over 1100 drug candidates studied at SmithKline Beecham Pharmaceuticals (now GlaxoSmithKline) have allowed us to analyze the relative importance of molecular properties considered to influence that drug property. Reduced molecular flexibility, as measured by the number of rotatable bonds, and low polar surface area or

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total hydrogen bond count (sum of donors and acceptors) are found to be important predictors of good oral bioavailability, independent of molecular weight. That on average both the number of rotatable bonds and polar surface area or hydrogen bond count tend to increase with molecular weight may in part explain the success of the molecular weight parameter in predicting oral bioavailability. The commonly applied molecular weight cutoff at 500 does not itself significantly separate compounds with poor oral bioavailability from those with acceptable values in this extensive data set. Our observations suggest that compounds which meet only the two criteria of (1) 10 or fewer rotatable bonds and (2) polar surface area equal to or less than 140 Angstrom(2) (or 12 or fewer H-bond donors and acceptors) will have a high probability of good oral bioavailability in the rat. Data sets for the artificial membrane permeation rate and for clearance in the rat were also examined. Reduced polar surface area correlates better with increased permeation rate than does lipophilicity (C log P), and increased rotatable bond count has a negative effect on the permeation rate. A threshold permeation rate is a prerequisite of oral bioavailability. The rotatable bond count does not correlate with the data examined here for the in vivo clearance rate in the rat.

来源: Journal of Medicinal Chemistry 期刊

发布日期:2002-06-06

全文链接:<http://agri.ckcest.cn/file1/M00/06/6F/Csgk0Fz4vTWAadt4hAAH7NYSaNgk907.pdf>

➤ 相关专利

1. Aerosol for, and a method of pest control using same (用于防治害虫的气雾剂和使用该气雾剂的方法)

简介: 本专利提供了一种用于防治害虫的气雾剂和使用该气雾剂的方法。并对该气雾剂的害虫防除成分、有机溶剂、喷射剂、喷射力等进行了分析与比较。

来源: 日本专利

发布日期:2019-03-27

全文链接:<http://agri.ckcest.cn/file1/M00/06/70/Csgk0F0Ax9uAUg9AAAAACapqJbaQ507.png>

2. INSECT REPELLENT COMPOSITION AND METHOD OF USE (昆虫驱避剂组合物和使用方法)

简介: The present invention is concerned with an insect repellent composition and a method of using the same to repel insects over an extended period of time. The compositions of the invention include natural insect repellents and can provide a prolongation of complete protection times to a 12 hour minimum thereby enabling a once daily dosage regime if required.

来源: 世界知识产权组织

发布日期:2017-05-18

全文链接:<http://agri.ckcest.cn/file1/M00/06/70/Csgk0F0AyLeAVWxKACVksRCKso003.pdf>