

牡丹江市周边蜂业调查报告

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摘要:为了降低蜜蜂养殖成本,提高蜂业的整体竞争力,对牡丹江市周边蜂业现状进行调查,分析了牡丹江市周边蜂业发展存在的问题,即蜂群管理水平技术参差不齐、蜂王用种比较混乱、蜂业从业人员老龄化比较严重;明确了峰产业的发展优势,并提出了发展建议:依托科研机构,提升蜂农技术水平,搭建合作平台整合蜂业发展资源,挂靠产业项目,助力蜂业产业发展。

关键词:牡丹江;蜂业;发展

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牡丹江市位于黑龙江省东南部,地处N43°24'~45°59',E128°02'~131°18',与该市下辖县(市)穆棱、林口、海林、宁安为邻。海拔300~800 m,地形以山地和丘陵为主,呈中山、低山、丘陵、河谷盆地4种形态,属于北半球的温带地区、半湿润大陆性季风气候。年平均气温较低,冬季严寒而漫长,夏季短促光照强,雨热同季,植物生长繁茂,蜜源植物花期集中,具有发展养蜂生产的良好自然条件,是黑龙江省的蜜蜂产业主产区之一。全市蜂群有10万多群,蜜粉源植物以森林蜜源、草地和农田的丰富蜜源相结合,春夏秋三季花开不断,形成了椴树蜜和秋蜜两个主要流蜜期,为牡丹江市发展养蜂事业提供了坚实的物质基础^[1]。

为了发挥牡丹江市资源优势,提高资源的有效利用率,对牡丹江市周边蜜粉源情况、蜜蜂养殖情况及存在的问题进行了调查^[2],旨在从根本上降低蜜蜂养殖成本,提高蜂业的整体竞争力。

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Research on Biological Characteristic and Quality Evaluation for PK15 Cell

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Abstract: In order to evaluate whether a PK15 cell strain can be used for the research and production of live vaccine, its biological characteristic, microbial contamination and adventitious virus agents were detected. The results showed that the viability of PK15 cells was 91.77% after thawing; the cells were adherent and epithelioid. The growth curve of PK15 cell was S-shape, and the maximum concentration was 24.67×10^4 cells·mL⁻¹ with the population doubling time (PDT) of 21.08 h. Lactic dehydrogenase (LDH) showed 5 bands and karyotyping analysis indicated that the chromosome number of a normal cell was $2n=38$, it demonstrated that it was porcine-derived cell line and had no contamination among cell lines. The cell was free of infections from bacteria, fungi and mycoplasmas; Detection in vitro culture, haemadsorption test, chicken embryo and animal inoculation test and determination of special fluorescent combination were all negative. The extro-gene could be effectively expressed. The quality of the cell line conformed to the quality control standards of live vaccine, and it could offer cell resources for the research and production of vaccine based on PK15 cells.

Keywords: PK15 cell; biological characteristics; quality evaluation