

Focusing on Innovation in S&T and Boosting Development of Dairy Industry

专注科技创新 助力奶业发展

—— An Interview with Mr. Li Xin, President of Afimilk China

—— 访阿菲金中国区总裁李鑫先生

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以色列是世界智能奶业的先行者，凭借精准管理理念和智能化的奶牛养殖管理系统，创造了奶牛单产世界前列的奶业奇迹。以色列阿菲金公司是全球领先的牧场信息化管理解决方案提供商，从1977年成立至今，聚焦牧场信息化管理、精准挤奶和牛只行为监控解决方案。阿菲金产品研发以提升牧场管理效率为最终目标。凭借高精度可靠的传感器，不断迭代升级的牧场信息化管理系统以及人工智能为基础的算法算力，为其在世界各地赢得市场认可和提供优质的用户体验。

阿菲金在以色列本土市场占有率80%，业务遍布全球五大洲，超过50个国家和地区的牧场在使用阿菲金产品和服务。2001年随着中以农业合作项目在华实施，阿菲金正式进军中国奶业市场，恰逢中国奶业迅速发展的时代。值此中华人民共和国成立70周年之际，记者专访了以色列高科技牧业公司阿菲金中国区总裁李鑫先生。李鑫先生拥有20多年跨国公司管理经验，自2016年加入阿菲金以来，作为中国区掌门人带领团队不断探索、变革和拓展中国市场，得到广大客户、合作伙伴和阿菲金以色列总部的高度认可。

记者：这些年阿菲金在中国奶牛养殖智能化、信息化进程中做出了重要贡献，请谈谈您眼中中国奶业的发展历程。

李鑫：首先感谢中国养牛人对阿菲金的长期支持。就牛奶生产方式变革而言，中国近几十年来奶业发展大致分成如下三个阶段。

第一阶段（2008年以前的10年）——牛奶原奶产量飞速提升，奶厅设备的电气化时代。特点包括以伊利、蒙牛为代表的乳企快速全



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Mr. Li Xin, President of Afimilk China

国扩张；奶牛头数快速增加；奶户数量快速增长。这是个市场为王的时代，阿菲金正是在该阶段适时进入中国市场。

第二阶段（2008—2018年）——原奶品质显著提升，奶厅设备的自动化时代。特点是强调挤奶效率、乳房健康和牛奶质量。具体包括严格监控原奶质量；规模化牧场增多；乳企加大自有牧场建设。这是个奶源为王的时代，给阿菲金提供了千载难逢的发展机遇。

第三阶段（2018年之后）——牧场整体效率提升，牧场管理进入信息化、数字化、智能化时代。特点包括并列识别准确率≈100%；转台识别准确率>98%；分群准确率>98%；发情揭发准确率>98%。在该阶段阿菲金进入了快速发展阶段。

记者：您认为当前中国奶业（中国奶牛养殖业）面临的最大挑战是什么？

李鑫：经过数十年的规模化发展，设备设施的标准化和标准操作流程推广应用，保证了牧场规模化效应的发挥。这期间中国牧场在奶牛群组层面的管理取得了不小的进步，满足了群组中大部分牛只在全生命周期中的各项需要，关注了牛只群组层级的共性需求，但对牛只的个性化需求关注不够。

当前中国奶牛养殖业规模化发展面临的挑战是如何盈利，而精细化是实现盈利的重要途径。要想实现精细化，首先要从基于传感器基础的信息化管理做起，信息化是解决规模化牧场精细管理困境的重要工具。大家都知道以色列奶牛养殖全球第一，单产高，但其实以色列奶牛养殖最重要的特点是营利性好。

在中国，牧场信息化的驱动力主要来自三方面，分别是政府数

字化项目补助；奶源集团推动数字化建设；牧场自身管理需求。在上述三种驱动力中，尤其是牧场自主发起的牧场信息化项目落地较快。因为牧场自发信息化项目，标志着牧场管理者从根本理念革新，认识到信息化管理对新阶段奶牛养殖的重要意义，而政府支持和乳企奶源推动的信息化项目也促进了行业技术进步。

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记者：阿菲金作为全球领先的牧场信息化管理解决方案提供商，成功的秘诀是什么？

李鑫：2012年我从IT行业进入挤奶机械领域时，正值中国奶业发展第二阶段。在那个奶业机械自动化发展阶段，牧场正处于大量新建整合时期，安装了大量自动化挤奶设备，特别是大量转台式挤奶机。当时，挤奶机行业设备维护从业人员以畜牧专业背景居多，缺少设备维护标准和理念，很多客户只认同设备坏了再修，客户实际损失很大。我在这个时期引入大量电气自动化人才，这些人才迅速掌握转台挤奶机维修技术，整个工程师队伍逐步建立起来，对行业可持续稳定发展的意义深远，建立了行业挤奶机售后服务规范标准。通过实际服务中的经验和教训，我们总结建立了一套完整的服务模式，并在市场中得到认可，对行业人才知识结构调整做了很大改善提升。

与此同时，市场正在逐步发生两个变化，其一是硬件设备越来越同质化，各个厂家的硬件趋于一致，客户对挤奶设备各部分硬件标准了解越来越多；其二是软件越来越价值化，产品的价值差异更多通过软件来体现，精准传感器和科学算法成为核心竞争力。很多工业设

备的优异性体现在软件功能的强大上。硬件产品在牧场运营中的边际贡献越来越小，牧场管理软件的边际贡献越来越大。“硬件为王”的时代正在过去，“软件为王”时代已然到来。

以色列阿菲金从创立至今40多年一直聚焦奶业，自带创新DNA，奶业产品研发中数个里程碑式的“全球首个”创新，让其成为智慧奶业最初的践行者。所有产品研发和信息化解决方案，都以提升牧场管理效率为最终目标。

记者：未来阿菲金如何在中国市场继续践行信息化牧场管理服务？

李鑫：以色列精准农业理念始终贯穿于阿菲金中国奶业服务。帮助牧场实现管理效率提升和可持续盈利，不仅是阿菲金的行业价值，也是阿菲金服务奶业的终极目标。目前，阿菲金中国奶业服务主要围绕五项业务，分别是各种品牌旧牧场信息化升级和改造；奶厅信息化解决方案；奶牛独立发情监控解决方案；设备售后维护保养服务和牧场信息化管理咨询服务。

凭借专业的服务解决方案和全球丰富的市场经验，阿菲金与国内近20家行业伙伴达成战略合作，建立了完善的销售服务网络。基于中国奶业持续的市场发展需求，无论是奶牛养殖新项目建设、奶厅信息化升级改造项目或养牛咨询服务方面，阿菲金的产品和服务都得到了良好的示范应用，满足了不同市场客户的需求，得到牧场客户认可，市场份额逐年增加。

随着中国奶业信息化阶段的逐步推进，阿菲金在渠道代理商优化和产品本身优势方面还在持续提升，硬件越来越强，硬件配置和安装质量达到了历史最高水平。经销商渠道的管理将持续推进本地化和客户化，大型项目阿菲金与合作伙伴合作推进。未来阿菲金在中国的目标是，充分发挥阿菲金软件优势，并且向所有软硬件厂商开放软件数据接入，通过继续走本地化道路精选合作伙伴，提升服务质量，让牧场真正实现信息化。

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Israel, the forerunner of the world's intelligent dairy industry, has created a miracle in the dairy industry with average milk production per cow per year ranking the forefront in the world by virtue of its precise management concept and intelligent dairy farming management system. Afimilk is the world's leading provider of automated and intelligent management solutions for dairy farm. Since its establishment in 1977, it has been dedicated to automated management for dairy farm, precision milking, and herd behavior monitoring solutions. The mission of Afimilk is to provide dairy farmers with superior technology, to automate and manage dairy farms, enabling profitable milk production and improvement of animals. Relying on highly accurate and reliable sensors, computerized systems for dairy farm in an iterative upgrade, and AI-based algorithm and hashrate, it has won recognition of milk producers worldwide and provided quality user experience.

Afimilk market share in local Israel is 80%, with operations in more than 50 countries and regions. With the implementation of the China-Israel Agricultural Cooperation Project in China, Afimilk entered China dairy market in 2001, when it's a time of rapid development of the Chinese dairy industry. On the 70th anniversary of the founding of the People's Republic of China, the interviewer and editor interviewed Mr. Li Xin, President Afimilk China. Mr. Li has more than 20 years of experience in multinational company management. Since joining Afimilk in 2016, he has led the team to continuously explore and reform to expand China market, and has won the recognition of customers, partners and Afimilk headquarters.

Multinationals in China: Over the years, Afimilk has made important contributions to the process of intelligence and information-based dairy farming of China. Would you please share your viewpoints of China dairy development with us?

Mr. Li Xin: First of all, I would like to express my appreciation for giving me this chance and getting long-term support from China dairy partners and end-users in recent decades. In terms of reform in milk production mode, China's dairy industry is roughly divided into the following three stages.

Stage I (ten years before 2008): A time of rapid increase in raw milk output and electrification of equipment for the milking parlor. Feature I. Milk enterprises represented by Yili and Mengniu expanded rapidly throughout China. Feature II. The number of cows increased rapidly. Feature III. The number of milk producers increased rapidly. This was a time when the market was dominant, and it was at this stage that Afimilk entered China market in due course.

Stage II (2008-2018): A time of significant improvement in raw milk quality and automation of equipment for the milking

parlor. Features: Emphasis on milking efficiency, cow health and milk quality. Feature I. Raw milk quality was strictly monitored; Feature II. There were more large-scale dairy farms. Feature III. Milk enterprises enhanced their self-owned dairy farm construction. This was a time when milk source was dominant, which provided Afimilk with a remarkable opportunity for development.

Stage III (after 2018): A time of overall improved efficiency of the dairy farm, of which the management has turned to informatization, digitalization and intelligentization. Feature I. Parallel recognition accuracy \approx 100%. Feature II. Rotary table recognition accuracy > 98%. Feature III. Clustering accuracy > 98%. Feature IV. Estrus disclosure accuracy > 98%. This stage ushers in rapid development of Afimilk.

Multinationals in China: What do you think is the biggest challenge for China dairy farming?

Mr. Li Xin: After decades of scale development, standardization of equipment and facilities and popularization of standard operating procedures have promoted the efficient operations in dairy farms. During this period, China's dairy farms have made considerable progress in herd management, meeting the needs of most cows in the whole life cycle, paying attention to the common needs of the herd while less attention to the individual needs.

At present, scale development of dairy farming in China is challenged by how to hold on to sustainable profitability,

and lean management is an important way to achieve this goal. In order to realize lean management, we must first start with sensor-based computerized management, which is an important tool to address the lean management of large-scale dairy farms. It is known that Israel's dairy farming ranks first in the world with a high average yield per cow. However, it is best characterized by profitable growth.

In China, the informatization of dairy farms is mainly driven by the three aspects, which are respectively government subsidies for intelligent projects; intelligent construction promoted by milk source enterprises; self management demand



of the dairy farm.

Among the above driving forces, the information-based project independently initiated by the dairy farm is realized particularly fast since it marks that the fundamental concept innovation of the dairy farm manager as a result of the awareness of the significance of intelligent management to dairy farming in a new stage. Besides, the information-based projects supported by the government and those promoted by milk source enterprises have also fostered technological progress of the industry.

Multinationals in China: What is Afimilk's secret of success as the world's leading provider of intelligent and automated management solutions to dairy farms?

Mr. Li Xin: It was the second development stage of China's dairy industry when I entered the milking machinery sector from IT industry in 2012. At such a stage of machine automation in dairy industry, dairy farms were under massive construction and integration, with a large number of automatic milking equipment installed, especially rotary milking machines. At that time, most of the equipment maintenance workers in the milking machine sector had background in animal husbandry and less knowledge of equipment maintenance standards and concepts. Many customers agreed to repair the equipment only after it was broken, resulting in large actual losses. In such a context, I introduced a number of electrical automation talents who quickly mastered the maintenance skills for rotary milking machines. The team of engineers was gradually established, which had far-reaching influence on the sustainable and stable development of the industry, leading to the formulation of the standard for after-sales service of industrial milking machines. Drawing experience and lessons from actual services, we have summarized and established a complete service model, which has been recognized in the market and has greatly improved the knowledge structure of personnel in this industry.

Meanwhile, two changes have taken place in the market. First, the hardware equipment is becoming more homogeneous, various manufacturers tend to have similar hardware equipment, and customers are more informed of the hardware standards for various parts of the milking equipment. Second, software is becoming more valuable to reflect the value

difference of products, with precision sensors and scientific algorithms becoming core competitiveness. Many industrial machines are advantageous for the powerful function of software. The marginal utility of hardware products in the operation of dairy farms is gradually outweighed by that of dairy farm management software. The time when "hardware is king" is being substituted by a time when "software is king".

Afimilk has been committed to dairy industry for over 40 years since its establishment. Focusing on innovation, it has made several milestone "first-in-the-world" innovations in the research and development of milk products, becoming one of the first practitioners of intelligent dairy industry. The ultimate goal of all product research and development and information-based solutions is to improve the efficiency of dairy farm management.

Multinationals in China: How will Afimilk continue to practice intelligent dairy farm management services in China's dairy market?

Mr. Li Xin: Israeli precision agriculture concept always runs through Afimilk's milk services in China. It is not only the industrial value of Afimilk, but also the ultimate goal of Afimilk in serving the dairy industry to help dairy farms achieve improved management efficiency and sustainable profitability. At present, the business of Afimilk for milk services in China focuses on: information-oriented upgrading and renovation of old dairy farms of various brands, information solutions to milking parlors, solutions to stand-alone cow monitoring, after-sales maintenance services for equipment, and consulting services for dairy farm management.

With professional service solutions and rich global market experience, Afimilk has reached strategic cooperation with nearly 20 Chinese dealers and established a complete sales service network. Based on the continuous market development demand of China's dairy industry, Afimilk's products and services have been well applied as classic cases whether it is the construction of new dairy farming projects, the informatization-oriented upgrading and renovation of milking parlors, or consulting services for dairy farming. It has met the demand of customers from different markets, been recognized by dairy farm customers, and gained rising market share year by year.

With the progress of informatization stage of China's dairy industry, Afimilk keeps improving in terms of channel agent optimization and product advantages. It provides better and better hardware, with the hardware configuration and installation quality having reached the highest level in history. For the management of regional dealers, Afimilk will continue to promote localization and customization, and cooperate with partners to work on large-scale projects. In the future, Afimilk's goal in China is to give full play to its software advantages, make software data accessible to all software and hardware manufacturers, follow the localization path and carefully choose partners, improve service quality, and make dairy farms truly information-based.

The China's intelligent dairy farming is promising. Afimilk will go forward and develop along with China's dairy industry to realize win-win cooperation!

