

山东乐陵枣林复合系统保护与发展

PROTECTION AND DEVELOPMENT OF LAOLING JUJUBE FOREST COMPOSITE SYSTEM OF SHANDONG PROVINCE

保护与发展规划：通过实施枣林生态系统、农耕文化和农业经济结构完整性保护工程，创新经营模式，加快农业产业结构调整，依靠科技创新，延长红枣产业链条，深入挖掘千年枣林蕴含的历史文化内涵，发展生态休闲旅游农业，促进枣林复合系统的可持续发展。

► Protection and development plan: Through the implementation of jujube forest ecosystem, farming culture and agricultural economic structure integrity protection project, innovation of business model, accelerate the adjustment of agricultural industrial structure, rely on scientific and technological innovation, extend the jujube industrial chain, in-depth excavation of the historical and cultural connotation of the millennium jujube forest, develop ecological leisure tourism agriculture, promote the sustainable development of Jujube forest composite system.



枣林复合系统的传承与保护

INHERITANCE AND PROTECTION OF JUJUBE FOREST COMPOSITE SYSTEM

实施种质资源保护工程。根据枣树树龄标准，确定保护等级，建立古树名木图文档案和电子信息数据库，出版发行《乐陵市古树名木录》。建立省级枣树种质资源库，对596个优质枣树品种实施专项保护，设置智能感应器，全天候监测枣树生长状况和病虫害情况。对系统内500年以上的古枣树开展认筹公益活动，唤醒全民保护古枣树的意识。

► Implementation of germplasm resources protection projects. According to the age standard of jujube trees, the protection level was determined, the graphic archives and electronic information database of ancient and famous trees were established, and the Record of Ancient and famous Trees in laoling City was published and issued. The provincial germplasm resource bank of jujube trees has been established, and 596 high-quality jujube tree varieties have been specially protected, and intelligent sensors have been set up to monitor the growth conditions, diseases and pests of jujube trees all day long. Carry out public welfare activities for the ancient date trees more than 500 years old in the system, and wake up the awareness of the protection of ancient date trees.



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► We will implement systematic ecological protection projects. Conservation of biological diversity. The biodiversity of the system was investigated, and the biological control of diseases and pests was mainly promoted, and the miscellaneous trees and weeds were removed by artificial pulling or mechanical harvesting, so as to effectively protect the plant species community of the system. We will protect the ecological environment. Agricultural non-point source pollution monitoring system and resource dynamic evaluation and early warning system should be established. Water-saving technologies such as sprinkler irrigation and drip irrigation should be adopted to control agricultural non-point source pollution and maintain the safety of soil, water and air in the system. Make full use of natural resources such as light, heat, water and soil, and actively develop the cyclic ecological agriculture methods such as jujube grain intercropping, jujube medicine intercropping, and forest breeding.



枣林复合系统的利用和发展

UTILIZATION AND DEVELOPMENT OF JUJUBE FOREST COMPOSITE SYSTEM

做优红枣产业品种培育。围绕红枣产业发展，建立国家枣树良种示范基地、红枣新品种繁育基地、高效栽培示范基地等基地5个，引进培育红枣新品种403个，选育新、优、特品种3万余亩，引进防裂果、棒肥实验等新技术20项，系统内科技贡献率65%，成果转化率达80%。

► Do excellent jujube industry variety cultivation. Focusing on the development of the jujube industry, China has established five national jujube fine seed demonstration bases, new jujube variety breeding bases, and high-efficiency cultivation demonstration bases, introduced 403 new jujube varieties, selected and bred more than 30,000 mu of new, excellent and special varieties, introduced 20 new technologies such as anti-cracking fruit and rod fertilizer experiments, and the contribution rate of science and technology in the system has reached 65%, and the conversion rate of fruits has reached 80%.



做强红枣产业精深加工。推动对金丝小枣精深加工，延长产业链。培育枣制品加工企业19家，研发出浓缩枣汁、金丝枣酒、红枣酵素等400多个深加工产品；建设大型红枣交易市场2个，年交易量4000万斤，年交易额2.6亿元；发展电商企业6家，门店、微商超2000家，全年销售红枣及红枣制品1.8亿斤，年销售额达8亿多元。

► Strengthen the jujube industry deep processing. Promote the deep processing of gold wire jujube and extend the industrial chain. 19 jujube product processing enterprises have been cultivated, and more than 400 deep-processing products such as concentrated jujube juice, Golden-silk Jujube and jujube enzyme have been developed. Construction of two large-scale red date trading markets, with an annual transaction volume of 40 million jin and an annual turnover of 260 million yuan; Developed 6 e-commerce enterprises, stores, wechat business more than 2,000, annual sales of red dates and jujube products 180 million jin, annual sales of more than 800 million yuan.



做大红枣产业文旅融合。发展节会经济。通过举办中国金丝小枣文化节、枣博会和农民丰收节，实现从卖小枣到卖品牌、卖旅游、卖文化的转变。发展文旅经济。以千年枣林为依托，发展“生态游”，建成旅游景点18个、生态体验点13个、创建A级旅游景区10个；以冀鲁边区红色革命文化为载体，发展“研学游”，叫响“南有沂蒙山，北有冀鲁边”的文化品牌；实施星锐影视文化旅游开发项目，发展“体验游”，加快“南横店，北乐陵”影视名城品牌塑造，年接待游客超30万人次。

► Make big jujube industry cultural travel integration. Develop the festival economy. By holding the China Golden Jujube Culture Festival, jujube Fair and farmers' Harvest Festival, we will realize the transformation from selling jujube to selling brand, selling tourism and selling culture. Develop cultural tourism economy. With the millennium jujube forest as the basis, the development of "ecological tourism", built 18 tourist attractions, 13 ecological experience points, and created 10 A-level tourist attractions; With the red revolutionary culture of the border area of Hebei and Shandong as the carrier, the development of "research tour" and the cultural brand of "Yimeng Mountain in the south and Hebei and Shandong border in the north"; Implementation of the Xingrui film and television cultural tourism development project, the development of "experience tour", accelerate the "south Hengdian north Laoling" film and television city brand building, the annual reception of more than 300,000 tourists.

