

THEORY AND PRACTICE
OF ECOLOGICAL AGRICULTURE
CONSTRUCTION OF BENXI CITY

农业生态学
农业生态学

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探索具中国
特色的生态农
业之路

洪绂曾
一九九〇年五月



国家农业部副部长洪绂曾题词

发展生态农业 改
善农业生态环境

肖作福
一九九〇年五月

辽宁省副省长肖作福题词

建設生態農業保護
綠色屏障促進遼東
地區經濟持續發展

李军
2012年
五月

辽宁省人大常委会副主任李军题词

山寺水香春常在，

林茂粮丰乐融融。

冯友松敬题

一九九五年五月一日

辽宁省人大常委会副主任冯友松题词

建设生态农业，
实现可持续发展，
让山青水绿，
为子孙造福。

董九洲

中共本溪市委书记董九洲题词

依法建設生態農業
振興本溪地區經濟

程盛中

一九七五年七月

本溪市人大常委会主任程盛中题词

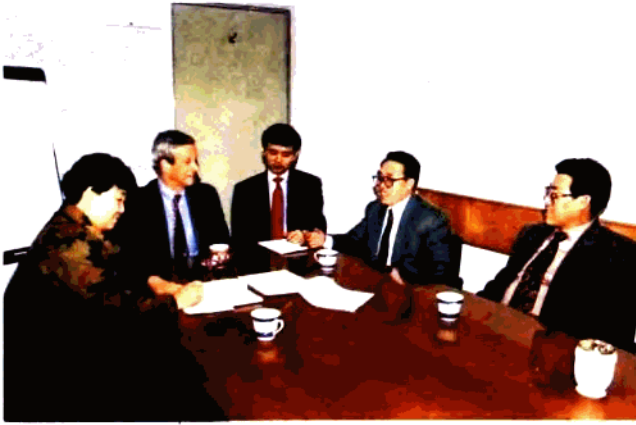


1993年9月边疆、石山等领导同志视察西高卜村“四结合”沼气池建设情况

1993年12月副市长陈芳洲在北京向国家农业部有关领导同志汇报本溪市生态农业建设情况



1994年9月5日全国生态农业县建设领导小组委托全国生态经济学会、中国农业生态环境保护协会在北京召开的“本溪市生态农业建设总体规划鉴定会”的情况



1995年1月副市长陈芳洲在北京拜会联合国开发计划署驻华总代表亚瑟·N·贺尔康先生时的情形

1994年6月全国生态农业建设领导小组顾问、中国生态经济学会常务副理事长石山、全国生态农业县建设领导小组专家组组长、全国农业生态环境保护协会常务副理事长张文庆视察南芬区尾矿坝废弃地改造利用情况



石山、张文庆等领导同志视察草河城生态农业建设情况

序 言 一

《本溪生态农业建设理论与实践》是一本内容丰富、资料翔实的书。它记载了本溪市领导、科技人员、干部和群众对生态农业建设的理论探索、规划设想和实践的生动过程,记载了已取得的丰硕成果和有价值的经验,还记载了一批专家学者在考察后提出的论断和评价。对于经济理论工作者具有重要的参考价值,对于地市一级领导在组织全地区、全市的生态农业建设和生态经济建设活动方面,更具有重要的借鉴作用。总之,这是一本具有很大影响和值得重视的著作。

本溪市是个重工业城市,污染又出了名,曾是卫星看不到的烟都;又是一个山区,开发与治理的难度比平原大得多。在这里搞生态农业建设,是要有很大的远见和勇气的,难度大、见效慢、投入多,许多工作往往是前几届的欠债或者为后几届创政绩的,对本届说来,有为人作嫁的性质。从1987年以来,本溪市领导坚持这样干下来了,并且取得了一个又一个成绩,赢得了城乡人民和干部的拥护和支持,也引起了各方面的重视。这本身就是一件了不起的壮举,竖起了一面按新思路艰苦创业的旗帜。

我曾两次到本溪市参观、考察生态农业建设事业,参观了各种典型,听到了市、县有关人员的介绍,又详细阅读了市生态农业建设总体规划和其他资料,深深感到本溪市的做法,深刻地掌握了生态经济思想这个新的经济理论的精髓,把发展生产与建设环境、培植资源结合起来,把当前利益与长远利益结合起来,把为当代人富裕和为后代人富裕结合起来,真正称得上是社会主义建设事业。它在较短时间内取得的成就,又生动地显示出生态经济思想的正确性和巨大威力。本溪市认真建设生态农业,实际上是农业生产一场新的革命,也是经济建设工作的一场新的革命,至少在一个重要领域是如此。这里的农村当前各项生产是蓬勃发展的,但并不破坏资源,而且山山水水合理安排,可利用的土地和其他资源愈来愈丰富,有了一个良性循环的雏形,使人们看到一个美好的、广阔的前景。参观后令人心旷神怡、心情振奋。城区周围出现了一个绿色包围圈,其面积大约为市区的5倍,使城里人生活在绿色怀抱中。对农村来说,有了一个绿色屏障吸收城市的污浊空气,保护农村的生产和生活。整个农村又是在绿色怀抱中,形成一片绿色世界。这两个绿色包围圈既保护了农业的健康发展,又大大减轻水旱灾害的威胁。这种景象在全国也是不多的。这是全市人民多年来辛勤建设的成果。有了这样的优美环境,不仅各项农业生产能顺利进行,而且新的生产门路不断涌现,比如山上到处是茂密的森林,野生植物栽培业和野生动物饲养业就能不断发展起来,如野生蔬菜栽培、冷泉养鱼、林间养林蛙等。农村各项建设事业也随之兴起。各项新技术被引入农村。生态住宅、生态庭院、新能源建设等到处涌现。人们的生态意识、生态经济思想逐渐增强。有人说,在这样的农村参观、考察,是一种享受,返回到大自然的怀抱。

当然,现有的成就仅是一个良好的开端,要全部建成还要付出巨大的努力,还有一段较长的路程。比如这里的小流域开发和治理是高标准的,展示的前景是美好的,开阔了人们的眼界。但目前只开发了一小部分,要把全部小流域都开发和治理好,大约需要20年左右的时间。新生产基地建设和新农村建设任务,同样艰巨和繁重。农村文化事业建设更是如此。就是说,从好的开始到全部建成是一个很长的过程,要有一个科学的规划和几届政府接着干的决心和办法,还要有具体的安排和细致的组织工作,才能完成这一伟大建设任务。本溪市已

这样干起来并准备继续干下去,直到全部完成。这是本溪市生态农业建设提供的一条重要经验和启示,对各地各级领导具有十分可贵的借鉴作用。

本溪市生态农业建设对农村工业化提出了新的要求,一是要求解决农产品加工增值问题,使农村进一步富起来;二是农村工业不能破坏农村已有的优美的生态环境,要保持一个绿色世界和绿色食品生产基地。即是说农村不能搞污染严重的工业,已有的污染工业要切实治理或转业。市领导已决心这样做了。实现了这一条,就是一个巨大的成就,保证农村的工农业生产在良性循环的轨道上运行,从而能立于不败之地。这一条对各地农村均是重要的启示。

为了保护农业生产和绿色食品生产基地,对于城市工业生产和城市建设也将提出新的要求,城市工业生产不能继续污染农村,城市建设也应如此。即是说要求市领导实行城乡一体化,工农业生产一体化,变城乡二元结构为一元结构,认真建设生态经济市,不再以农村为壑。道理很清楚,农民花大力气建设好的新农村,如果城市污染物继续排入农村,破坏农业生产和农村环境,农民就不会再允许了,矛盾就会激化,这是社会主义国家决不允许发生的事情。因此,必须认真解决这个矛盾。由此可以看出,由生态农业市向生态经济市发展是必然趋势,也是社会主义建设的迫切需要,而且早转早主动早得益。本溪市生态农业建设的成就,必将加速这一转变过程。这是好事,相信本溪市将会提供这方面的好经验。

我对本书的出版极为高兴。一方面人们可以系统了解和学习本溪市的有益经验,推动更多的地方也这样做;另一方面又鞭策本溪市干部和群众加快步伐,取得更大成就和提供新的经验。这两者都有利于生态农业建设事业在全国的推行。生态农业建设是一个新事物,虽然它是发展农业的新思路、新方向,也是我国农村建设的最有效途径,有极强的生命力,但人们对它还不熟悉,需要有更多的典型和经验起示范作用,需要更多的人来做示范和宣传、说服工作。本溪市由于它是一个老的重工业城市,它在这方面的工作和成就,对人们更具说服力。它又是一个山区城市,对于多山的我国来说,它的经验也是极为重要的。

我祝愿本溪市的生态农业建设取得更大成就,也希望它能提供更多的经验和模式。

全国生态农业县建设领导小组顾问 石山
中国生态经济学会常务副理事长
1995年2月7日

PREFACE I

《the Theory and Practice of Ecological Agriculture Construction of Benxi City》is a book with wealth of contents and full and accurate data. It has been recorded in this book the lively process of the theoretical probe, ideas of plan and the practice of the leaders, scientific and technological specialists, cadres and the masses in the construction of ecological agriculture (eco-agriculture) of Benxi City; the plentiful and substantial achievements and valuable experience; and also the inference and evaluation put forward by the specialists and scholars after their investigation. This book has an important reference value to the researchers of economic theory and even more an important role of use for reference to the leaders of prefectures and cities in their organizing and carrying on the eco-agriculture construction and ecological economy construction in the limits of whole prefecture and whole city. Anyhow it is a book of big effect and a work being worth to pay attention to.

Benxi is a city of heavy industry and famous for its pollution, it is a city of smoky fog, didn't be found by the artificial satellite, and a city located in mountainous area, so its development and harnessing is much more difficult than that of plain area. It is need more foresight and courage to construct the eco-agriculture here, which is of big difficulty, slowly producing the desired result, more investment, many works of which are actually to pay back the debt of late governments or to produce the official achievements for next governments, so it has the feature of doing things for others to this government itself. Since leaders of Benxi City have persistently done thus and get results one after another, won the upholding and support from people and cadres of town and country and caused much attention from all aspects. This is in itself an amazing magnificent feat, which has held up a banner of building an enterprise through arduous effort according new ideas.

I've been in Benxi City twice, investigated the construction of eco-agriculture there, visited different models, heard the introduction of concerned people and read in detail the overall plan of eco-agriculture construction of Benxi City and other data. I deeply think that the leaders of Benxi City have grasped the quintessence of thought of ecological economy, a new economic theory, combined the development of production with the construction of environment and the cultivation of resources; combined the current benefit with the long-term benefit and the richness of present people with the richness of future generations, it is really a cause of socialist construction. The achievements obtained in a shorter time have lively shown the correctness and big power of the ecological economic thought. The conscientious construction of eco-agriculture in Benxi City is practically a new revolution both in agricultural production and in economic construction, at least it is so in an important field. The present development of various productions in the countries here is prosperous and vigorous, but the resources haven't been destroyed, the arrangement across the land here is reasonable and the available land and other resources have become rich more and more, there is an embryo of good circulation which makes the people to see a magnificent and broad prospects, and to be relaxed

and happy and inspired after visiting. There is a green circle surrounding the city proper and with an area about 5 times that of the city, which makes the people of city to live in an embrace of green surroundings. And there is also a green protective screen to absorb the polluted air of city and protect from the latter the production and living of the country, the whole country is in the green embrace and forms a green world. These two green circles both protect the normal development of agriculture and much more weaken the harms of water and drought disasters. This scene has fewly been seen in whole country, it is an achievement caused from the diligent construction of people of this city. Because of such fine environment the agricultural production could be carried on smoothly and the new ways for production are constantly emerging. There are the dense forests everywhere on the mountains, and the cultivation of wild plants and the raising of wild animals have been continuously developed, such as the planting of wild vegetables, raising the fishes in cold springs, raising the frogs in forests etc. Various constructions of country have been risen immediately. Various new techniques have been introduced to countries, the ecological house, courtyard and construction of new energy sources are emerging everywhere. The ecological consciousness and thought of ecological economy are strengthening gradually. Somebody said that it is an enjoy to visit and investigate such countries for returning back to the arms of nature.

Of course, the present achievement is only a good beginning. It will be a longer course and needs pay gigantic efforts to finish the whole construction. Such as the development and harnessing of small basins is of high standard, its prospects are magnificent and have broadened people's field of vision, but only a small part of it has been developed at present, it is need about 20 years for developing and harnessing all the small basins. The construction for new production bases and new countries is also difficult and heavy and the construction of undertakings of country culture is even more the same. So it is need a long-term course for the complete setting up from a good begining, also a scientific planning, the determination and methods of several governments who will do it successively and a concrete arrangement and careful organizing work. Benxi City has thus worked out and intends to continue it till its completion. This is an important experience and inspiration put forward from the construction of eco-agriculture of Benxi City, it has a valuable use for reference to the leaders at different levels of various places.

The eco-agriculture construction of Benxi City has put forward new demands on the country industrialization: first, to solve the problem of increment value in processing of agriculture products, so as to enable the countries further becoming rich; second, the country industry shouldn't destroy the present fine eco-environment and should maintain a green world and base for producing the green foods, that means the industry of serious pollution shouldn't be started, and for the existed industry of pollution a practical harnessing or changing it into other enterprise is needed. The city leaders have decided to do it thus. It is a great success to realize it, which ensures the production of industry and agriculture in country to be run in a track of good circulation, and thus to be in an impregnable position. This is an important inspiration to the country of various places.

To protect the agricultural production and the base for producing green foods, the new demands should be put forward to the urban industrial production and construction, the latter shouldn't continue to pollute the countries. That means to demand the city leaders to carry out the integration of town and country, the integration of production of industry and agriculture, changing the bi-structure of town and country into the mono-structure, to construct conscientiously the city of ecological economy, no longer to take the country as the gully. The reason is clear. The peasants have taken a lot of efforts to build up new countries, they of course don't tolerate the continuous excretion of urban pollutants to the countries so as to destroy the agricultural production and village environment, or the contradictory would be sharpened, this is never permitted to be happened in a socialist country. So this contradictory should be solved seriously. From it we can see that it is an inevitable trend the development of an eco-agriculture city into an ecological economic city, which is also an urgent need for socialist construction. The achievements for eco-agriculture construction of Benxi City will accelerate certainly this transformation. It is a good deed and we believe that Benxi City would provide good experience in this aspect.

I'm very pleased for the publication of this book. On the one hand people could know and learn the useful experience of Benxi City so as to push forward more places to do so; on the other hand it would urge the cadres and masses of Benxi City to quicken their steps to obtain more achievements and offer new experience, both two are advantageous to the popularization of undertakings of eco-agriculture construction in whole nation. The eco-agriculture construction is a new thing, a new thought and new direction to develop the agriculture and the most effective way to construct the rural areas of our country. It has a very strong vitality, but people are not so familiar with it. So it is need more models and experiences to act as a demonstration and more people to demonstrate and propagate it and to do the persuasion work. Because of being an old city of heavy industry the work and achievements of Benxi City in this aspect are more convincing. Benxi is also a city in mountainous area, its experience is extremely important to China with many mountains.

I wish Benxi City to obtain more achievements and also to offer more experience and models in the construction of eco-agriculture.

Shi Shan
Feb. 7, 1995

(岳绍先译)

序 言 二

党的十一届三中全会以来,在党的改革开放方针的指引下,长期被人们认为是“大工业、小农业”的本溪,农林牧副渔业和乡镇企业迅速发展,农产品供应水平不断提高,农业后备资源显著增加,农村生态环境有效改善,本溪农业发生了令人瞩目的变化,已成为全市经济发展、社会安定的重要基础。

本溪市位于辽宁东部山区,地貌特征“八山一水一分田”,是国家重要的原材料生产基地。长期以来,发展经济消耗了大量的资源和能源,以粗放经营为主要特征的传统生产方式,使自然生态环境受到了一定的破坏。由于历史上森林资源过度消耗,耕地大量占用,植被面积不断减少,森林调控能力降低,使水土流失加重,水位逐年下降,灾害频繁发生。人们记忆犹新的1960年发生的百年不遇的特大洪水,造成1064人死亡,被淹农田32.3万亩,冲毁房屋1万多间,经济损失3亿多元;1986年一场洪水,全市有27.7万人受灾,直接经济损失1.2亿元。

沉痛的教训启发教育了本溪人民,广大干部群众积极探索合理保护、开发、利用自然资源,发展经济的正确道路。市政府及时总结群众的实践和创造,于1987年提出建设生态农业,开发致富山区,加快发展商品经济,实现自然资源大增加,生态环境大改善,农村经济大发展的“三大变化”,作为一项长期的战略任务,纳入各级政府工作的议事日程。八年来,结合全省开展的农田基本建设“大禹杯”竞赛活动,从综合开发治理小流域入手,以治山为根,治水为兴,治地为本,实行山水林田路综合开发,综合治理,综合利用,求得综合效益,全面开展生态农业建设。治山造林绿化,提高森林覆盖率。治水修堤筑坝,堤路结合堤后造田。在小流域中修建小水库,实行高水高蓄高用,低水低拦低浇。让河靠山,路靠边,土地连成片,山上森林戴帽,山腰果树缠绕,山下梯田层层。青山常在,绿水长流,造福当代,惠及子孙。1991年市政府又发出建设本溪生态农业市的号召,实施两个生态保护圈战略,在城区周围建成225.9平方公里的森林公园,形成小的保护圈,净气清水,改善城区生态环境;在全市范围内开展综合开发治理小流域,形成大的保护圈,从根本上解决资源、发展和环境问题。编制了《本溪市生态农业建设总体规划》,制定实施措施,组建领导机构,落实工作责任,生态农业建设步入了有序的发展轨道。1994年,市十一届人大常委会十二次会议作出了生态农业建设的决议。同年9月,《本溪市生态农业建设总体规划》在北京通过了国家鉴定,并列入了《中国21世纪议程》的首选项目,从而使本溪生态农业市建设进入新的发展阶段。

通过对90多条小流域的综合开发治理,荒山披上了绿装,全市森林覆盖率达到61%;建成24个集灌溉、发电、养殖于一体的中小水库,充分利用水能资源,逐步把小流域建成“经济沟”、“富民沟”、“生态沟”;农田地力不断增强,粮食单位面积产量比8年前提高2.3倍。1994年在遭受严重洪涝灾害的情况下,农田建设经受了考验,发挥了作用,抵御了15号台风的袭击,农业夺取全面丰收,粮食总产量创历史最高水平。

为推进生态农业健康发展,建立了市生态农业学校和市生态农业科学研究所,通过各种形式开展生态农业知识教育和研究,提高广大干部群众的生态意识和可持续发展的观念。本溪生态农业的发展,不仅受益于本溪,而且受益于辽宁中部城市,它对经济发展的影响是极其深远的。

本溪生态农业建设之所以取得一定成效,是在党的改革开放政策指引下,各级党委、政

府和广大干部群众、工程技术人员共同实践的结晶。几年来得到各级领导、专家和有关人员的大力支持与配合,特别是原中国生态经济学会理事长边疆、现任中国生态经济学会常务副理事长石山、中国农业生态环境保护协会常务副理事长张文庆、农业部环能保护司司长王锡吾、中国 21 世纪议程管理中心主任刘培哲等同志,都给予了亲切关怀和具体指导。中央、省市新闻单位,省环保站等部门也给予了热忱的支持和帮助。借此机会,向关心支持本溪生态农业建设的单位和同志,表示最诚挚的谢意。

本溪生态农业建设虽然取得了阶段性成果,但工作仍处于起步探索阶段,尚需继续努力,扎实工作,以进一步完善和提高生态农业建设的水平和质量。面对 21 世纪,本溪农业要实现可持续发展,在有效地控制人口增长的前提下,遵循“整体协调,循环再生”的原则,培植和保护农业资源,合理开发,永续利用,进一步改善农业生态环境,提高农业综合生产能力和农产品有效供给水平,不断增加农民收入,加快农村奔小康的步伐。

我们组织编辑出版《本溪生态农业建设理论与实践》一书,作为系统资料,总结、探索生态农业建设的实践和规律,由实践上升为理论,指导生态农业建设健康发展。由于水平所限,书中疏漏之处在所难免,望批评指正。在此,对给予本书大力支持的各级领导、专家以及工作人员,一并深表感谢。

本溪市人民政府副市长 陈芳洲
1995 年 3 月