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Abstract : *In the article In our republic food safety provide for of the population good quality food products has been need , local organic products Create and storage analysis will be done . In particular , the same at the time in Uzbekistan village economy enterprises for ecological clean products current of reaching advantages and prospects separately emphasized . Statistics data and foreign countries experience with comparison based on village in the farm organic products cultivation according to recommendations given*

Key words : *addition value , ecological clean products , organic products , products natural content storage , population health , bio- farming .*

What is Bio-Farming?

Bio-farming, also known as organic farming or ecological farming, is an agricultural system that aims to produce food and other agricultural products using methods that preserve the environment, maintain soil fertility, and promote biodiversity. It avoids the use of synthetic chemicals, genetically modified organisms (GMOs), and emphasizes sustainable practices that work in harmony with natural ecosystems.

Key Principles of Bio-Farming

Soil Health and Fertility

Crop Rotation: Alternating different crops in the same field to improve soil health and reduce pest and disease cycles.

Green Manure and Cover Crops: Growing plants that are not harvested but plowed back into the soil to enrich it with organic matter and nutrients.

Composting: Recycling organic matter such as crop residues and animal manure to create compost, which enhances soil fertility and structure.

Pest and Disease Management

Biological Control: Using natural predators, parasites, or pathogens to control pests and diseases.

Companion Planting: Growing certain plants together to repel pests or attract beneficial insects.

Mechanical and Physical Controls: Techniques such as traps, barriers, and manual removal of pests.

Water Management

Efficient Irrigation Systems: Implementing drip irrigation or other water-saving techniques to conserve water resources.

Rainwater Harvesting: Collecting and storing rainwater for irrigation purposes.

Biodiversity

Polyculture: Growing multiple crop species in the same area to increase biodiversity and reduce the risk of crop failure.

Habitat Preservation: Maintaining natural habitats around farmland to support beneficial wildlife and pollinators.

Animal Welfare

Natural Living Conditions: Providing animals with access to outdoors, allowing them to exhibit natural behaviors.

Organic Feed: Feeding animals with organic and non-GMO feed.

No Antibiotics or Hormones: Avoiding the use of synthetic antibiotics and hormones in animal rearing.

Sustainable Energy Use

Renewable Energy: Utilizing renewable energy sources such as solar, wind, and bioenergy to reduce the carbon footprint of farming operations.

Energy Efficiency: Implementing energy-saving practices in farming activities.

Benefits of Bio-Farming

Environmental Protection

Reduced Pollution: Avoiding synthetic chemicals reduces soil and water pollution.

Enhanced Soil Health: Organic practices improve soil structure and fertility, leading to long-term agricultural productivity.

Biodiversity Conservation: Promotes a diverse ecosystem, which supports various plant and animal species.

Health Benefits

Chemical-Free Produce: Reduces exposure to harmful pesticides and chemicals for both farmers and consumers.

Nutrient-Rich Food: Organic products often have higher nutritional value and better taste.

Economic Sustainability

Market Premiums: Organic products typically command higher prices, providing better income opportunities for farmers.

Resilience: Diverse and healthy farming systems are more resilient to environmental stresses and market fluctuations.

Social Benefits

Rural Development: Organic farming can create more employment opportunities and support rural economies.

Community Engagement: Organic farms often foster closer relationships with local communities and consumers.

Conclusion

Bio-farming is a holistic approach to agriculture that prioritizes environmental health, economic viability, and social equity. By embracing natural processes and minimizing harmful interventions, bio-farming aims to create a sustainable and resilient agricultural system that benefits both people and the planet.

Economic, Social, and Environmental Efficiency of Organic Farming

Economic Efficiency

Cost of Production: Organic farming often incurs higher costs due to the use of organic inputs, labor-intensive practices, and certification fees. However, these costs can be offset by premium prices for organic products and lower input costs in the long term.

Yield and Profitability: Initially, organic farms may experience lower yields compared to conventional farms. Over time, yields can improve with better soil health and biodiversity. Profitability can be higher due to premium market prices and increasing consumer demand for organic products.

Market Demand and Premium Prices: The growing demand for organic products can lead to better market opportunities and higher prices, which can compensate for the higher production costs and lower initial yields.

Risk Management: Organic farming reduces dependency on external inputs, which can lower financial risks associated with price volatility of synthetic fertilizers and pesticides.

Social Efficiency

Health Benefits: Organic farming reduces the exposure of farmers, workers, and consumers to harmful chemicals. This can lead to better health outcomes and reduced healthcare costs.

Employment Opportunities: Organic farming is often more labor-intensive than conventional farming, leading to the creation of more jobs in rural areas and contributing to rural development.

Community Development: Organic farms often engage more with local communities, fostering stronger social ties and community involvement.

Education and Training: The shift to organic farming requires education and training for farmers, which can enhance their skills and knowledge, leading to broader benefits for the agricultural sector.

Environmental Efficiency

Soil Health: Organic farming practices, such as crop rotation, composting, and reduced tillage, improve soil structure, fertility, and microbial activity, leading to long-term soil health.

Biodiversity: Organic farms typically have higher biodiversity, both above and below ground, which can enhance ecosystem services such as pollination, pest control, and nutrient cycling.

Water Conservation: Organic farming practices reduce water pollution from synthetic chemicals and enhance water retention in the soil, contributing to better water conservation and quality.

Climate Change Mitigation: Organic farming can sequester more carbon in the soil through practices that increase organic matter. Additionally, it reduces greenhouse gas emissions by avoiding synthetic fertilizers and pesticides.

Reduced Pollution: By avoiding synthetic chemicals, organic farming reduces pollution in waterways and surrounding ecosystems, contributing to overall environmental health.

Conclusion

Organic farming presents a sustainable agricultural approach that balances economic, social, and environmental efficiency. While it requires significant initial investment in terms of knowledge, labor, and certification, the long-term benefits can be substantial. It supports better health outcomes, community development, biodiversity, and climate resilience. To maximize the potential of organic farming, supportive policies, market incentives, and education are essential.

Prospects of Bio-Farming in Uzbekistan

1. Favorable Agricultural Conditions

Uzbekistan has a variety of climatic zones and fertile soils that are conducive to diverse agricultural production. The country's long growing season and abundance of sunlight offer favorable conditions for organic farming.

2. Growing Domestic and International Market Demand

There is an increasing demand for organic products both domestically and internationally. As consumers become more health-conscious and environmentally aware, the market for organic produce is expected to grow, providing a lucrative opportunity for bio-farming in Uzbekistan.

3. Government Support and Policies

The Uzbek government is taking steps to support sustainable agricultural practices. Initiatives include subsidies for organic farming, training programs for farmers, and policies aimed at reducing the use of chemical inputs. Such support can create a conducive environment for the growth of bio-farming.

4. Export Potential

Uzbekistan's strategic location and trade agreements with neighboring countries and regions offer significant export potential for organic products. There is a growing demand for organic produce in markets such as Europe, the Middle East, and Asia, which can be tapped into by Uzbek farmers.

5. Sustainable Development Goals (SDGs)

Bio-farming aligns with Uzbekistan's commitment to the United Nations Sustainable Development Goals, particularly those related to zero hunger, good health and well-being,

clean water and sanitation, and life on land. Promoting organic farming can help the country achieve these goals.

6. Health and Environmental Benefits

The adoption of bio-farming practices can lead to improved health outcomes for both farmers and consumers by reducing exposure to harmful chemicals. Environmentally, bio-farming enhances soil health, biodiversity, and water quality, contributing to long-term agricultural sustainability.

7. Potential for Agro-Tourism

Organic farms can attract tourists interested in sustainable and eco-friendly practices. Agro-tourism can provide additional income for farmers and promote rural development.

8. Capacity Building and Knowledge Transfer

International collaborations and partnerships with countries that have advanced bio-farming practices can help transfer knowledge and technology to Uzbek farmers. Training programs and research initiatives can build the necessary skills and expertise within the country.

Challenges to Consider

While the prospects are promising, there are several challenges that need to be addressed for bio-farming to thrive in Uzbekistan:

Initial Investment and Transition Costs: Transitioning from conventional to organic farming can be costly and time-consuming. Farmers need financial support and incentives to cover initial investments and certification costs.

Certification and Standards: Establishing robust certification processes and ensuring adherence to international organic standards is crucial for market acceptance, especially for exports.

Awareness and Education: Farmers need to be educated about the benefits and practices of bio-farming. Extension services and training programs are essential for widespread adoption.

Infrastructure and Market Access: Developing infrastructure for storage, transportation, and marketing of organic produce is necessary to ensure that products reach consumers in good condition and at competitive prices.

Bio-farming in Uzbekistan has significant potential given the favorable agricultural conditions, growing market demand, and supportive government policies. Addressing the challenges through strategic investments, education, and infrastructure development can pave the way for a sustainable and profitable bio-farming sector in the country.

REFERENCES:

1. Солиев Дамиржон Нурматович. (2023). ПОВЫШЕНИЕ ОРГАНИЗАЦИОННОГО СОВЕРШЕНСТВА: ПОВЫШЕНИЕ ЭФФЕКТИВНОСТИ ДЕЯТЕЛЬНОСТИ ОТДЕЛ HR НА ПРЕДПРИЯТИЯХ. [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.10429440>

2. Азимов Бобир Фаттохевич, Рахимова Дилноза Давроновна, Солиев Дамир Нурматович НАУЧНЫЕ ОСНОВЫ ИННОВАЦИОННОГО ПОДХОДА К РАЗВИТИЮ

ПРОМЫШЛЕННОСТИ И СОКРАЩЕНИЮ БЕДНОСТИ В УЗБЕКИСТАНЕ // Universum: экономика и юриспруденция. 2022. №5 (92). URL: <https://cyberleninka.ru/article/n/nauchnye-osnovy-innovatsionnogo-podhoda-k-razvitiyu-promyshlennosti-i-sokrascheniyu-bednosti-v-uzbekistane> (дата обращения: 20.06.2024).

3. Abduxolikova R. M. ADVANTAGES OF MARKETING STRATEGIES IN ATTRACTING INDIVIDUAL AND CORPORATE CLIENTS //IMRAS. – 2023. – Т. 6. – №. 8. – С. 143-148.

4. Rajabova M. ISTE'MOLCHILARNING AFZALLIKLARINI TAHLIL QILISHDA MARKETING TADQIQOTLARI VA XIZMATLARIDAN FOYDALANISH SAMARADORLIGI //ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz). – 2023. – Т. 43. – №. 43.

5. Раджабова М. А., Гафуров Р. ПРАКТИЧЕСКАЯ НЕОБХОДИМОСТЬ КОММЕРЧЕСКИХ БАНКОВ В ОБЕСПЕЧЕНИИ ЭКОНОМИЧЕСКОГО РОСТА СТРАНЫ //INTERDISCIPLINE INNOVATION AND SCIENTIFIC RESEARCH CONFERENCE. – 2023. – Т. 1. – №. 7. – С. 49-52.

6. Rajabova M. WAYS TO ATTRACT FOREIGN INVESTMENT IN THE REGIONAL ECONOMY //ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz). – 2023. – Т. 36. – №. 36.

7. Bazarova M. EFFECTIVENESS OF USING PR-ADVERTISING SERVICES IN THE PROCESS OF PRODUCT DELIVERY ON THE EXAMPLE OF BUKHARA REGION //Modern Science and Research. – 2023. – Т. 2. – №. 12. – С. 506-512.

8. Rajabova, M. (2023). FEATURES OF COMMERCIAL BANKS IN ENSURING THE ECONOMIC GROWTH OF THE COUNTRY. ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu.Uz), 36(36).
извлечено от

https://journal.buxdu.uz/index.php/journals_buxdu/article/view/10132

9. Rajabova M. WAYS TO ATTRACT FOREIGN INVESTMENT IN THE REGIONAL ECONOMY //ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz). – 2023. – Т. 36. – №. 36.

10. Azimov O. CREATING A FAVORABLE INVESTMENT ENVIRONMENT FOR ATTRACTING FOREIGN INVESTMENTS INTO ECONOMIC SECTORS //ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz). – 2023. – Т. 32. – №. 32.

11. Abduxoligovna R. M. METHODOLOGY FOR EVALUATING KPIS TO IMPROVE THE EFFECTIVENESS OF PROFESSORS IN HIGHER EDUCATION //Galaxy International Interdisciplinary Research Journal. – 2023. – Т. 11. – №. 5. – С. 67-70.

12. Rajabova M. OILAVIY KORXONALARDA MOLIVAVIY HOLAT KO'RSATKICHLARINING SAMARADORLIGINI VAHOLASHNING INNOVATSION YO'LLARI //ЦЕНТР НАУЧНЫХ ПУБЛИКАЦИЙ (buxdu. uz). – 2021. – Т. 7. – №. 7.

13. Djumaeva Zamira Bustonovna. (2024). CREATIVE THINKING AND ITS APPLICATION IN ECONOMICS. [Data set]. Zenodo. <https://doi.org/10.5281/zenodo.10511684>

14. Navruz-Zoda L. B., Navruz-Zoda Z. B. Developing business skills in the methodology of “Local Travel Agency” //Economics. – 2021. – №. 1. – С. 22-25.

15. Bakhtiyorovna N. Z. L., Bakhtiyorovna N. Z. Z. Improvement of social prestige of entrepreneurial companies in Bukhara region //Academy. – 2020. – №. 3 (54). – С. 37-39.