

**PRODUCTION OF PESTICIDE-SAFE VEGETABLES
IN SURATTHANI PROVINCE, THAILAND**

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ABSTRACT

The government has announced that the year of 2004 is the "Year of Safe Food" in Thailand, and will focus on ensuring that all farmers use safe practices in the application of chemicals on their crops. Vegetables are one of the major areas of concern in announcing this initiative, since people consume them every day, and in the past there has been considerable concern over often high pesticide residues on produce. The government has been promoting proper pesticide usage for many years, but with only limited success. This study aimed to investigate the production practices and associated problems, and to determine the economic costs and returns, of producing pesticide-safe vegetables in Suratthani, Southern Thailand. The farming operations of 50 farmers were analyzed for the crop year of 2002/2003. The results showed that most farmers grew pesticide-safe vegetables in an open system using integrated pest management (IPM) techniques. Most farmers received at least some government support, and also showed a profit from the pesticide-safe vegetables due to lower cash outlays and also lower fixed costs. Labor was the major production cost, and other non-cash costs. Of the three vegetables evaluated, cucumber was the vegetable with the highest profit. Luffa had the least economic incentive, while yard-long bean offered some incentives due to its high cash return. Marketing was perceived as a major problem due to fluctuating prices, and the same low base price as ordinary vegetables (i.e. not-pesticide-free).

Key words: cost-return analysis, cultivation practices, food safety, produce

**PRODUCTION AND MARKETING OF SAFE VEGETABLES IN
VAN NOI, DONG ANH, HANOI**

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ABSTRACT

There has been an increasing public concern for food safety toward the 21st century in Vietnam. Among the foodstuff, vegetables are a major component of Asian, especially Vietnamese daily diet. Thus production of safe vegetables becomes one of the priorities of the Vietnamese government since early 1990's. Safe vegetables are produce free from pesticides and harmful microorganisms and containing heavy metals and nitrate levels below/equal to the threshold level. Surveys were conducted to analyze the progress of safe vegetable production, input use and marketing situation in Van Noi, a sub-urban commune of the city of Hanoi. Safe vegetable production appears to be a profitable enterprise that shows a positive trend in terms of hectareage, productivity and output. However, the inputs spent for safe vegetable production, especially organic matter vs. pesticides and mineral fertilizers need to be analyzed and studied to ensure the high quality of the products and economic efficiency as well as reduction of the threat to environmental contamination. Also marketing facilities should be improved.

Key words: use of inputs: marketing channels, costs and margin

**RESIDUES AND DECONTAMINATION OF SOME INSECTICIDES IN YARD
LONG BEAN, *VIGNA SESQUIPEDALIS* (L.) FRUW IN THAILAND**

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ABSTRACT

Residues of insecticides methamidophos, carbosulfan, carbofuran and cypermethrin in yard long bean, *Vigna sesquipedalis* (L.) Fruw were determined. Tamarons[®] 60% SL. Posse[®] 20% EC and Starzip[®] 25% EC were sprayed at 30, 60 and 10 ml/20 L of water, respectively. Residues in pods were analyzed by gas chromatography at 1 and 2 days after spraying. Methamidophos residues at 3.84 and 2.46 mg/kg were detected at 1 and 2 days, respectively. Carbosulfan rapidly degraded to carbofuran, and was not detected at 2 days after spraying whereas carbofuran residues were 4.30 and 3.29 mg/kg at 1 and 2 days, respectively. Cypermethrin was detected at 1.94 and 1.12 mg/kg at 1 and 2 days, respectively. Methamidophos and carbofuran residues remained at levels higher than the Maximum Residue Limits (MRLs).

The decontamination of these insecticides on or in pods taken 1 hr after spraying was also investigated. The extent of reduction depended on the rinsing method and the chemical type. Rinsing with 0.001% potassium permanganate, 0.1% acetic acid, 50% calcium hydroxide and milled-rice water could remove a greater amount of insecticide residues than rinsing with 0.9% sodium chloride, running water or boiled water. Cypermethrin residues were more easily removed than methamidophos and carbofuran. Percent reduction of cypermethrin, Methamidophos and carbofuran were 67.7, 39.3 and 55.3%, respectively. Rinsing with 0.001% potassium permanganate was suitable for removal of carbofuran and cypermethrin residues, while the most suitable rinsing method for methamidophos was 50% calcium hydroxide solution.

Key words: methamidophos, carbosulfan, cypermethrin, rinsing

**ECONOMIC POTENTIAL OF ESTABLISHING FRUIT BEARING
PERENNIALS IN CROPPED FIELDS**

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ABSTRACT

In Claveria, Misamis Oriental, the pure crop system of farming was a major contributory factor to the degradation of the soil. As a consequence, farm production was unstable and remained at a subsistence level. This was despite the introduction of several farming techniques to improve the production of crops.

To address this problem, timber trees were introduced. They seemed like very good investments given the promise of very high returns on investments as well as addressing the problem of soil degradation experienced in pure crop systems. However, the interest in timber trees soon declined because prices remained very low due to the very limited market. In addition, timber trees did not provide a continuous source of cash.

This paper illustrates the economic potential of introducing fruit bearing perennials in the farming system in lieu of timber trees. This provides an alternative that may address the different problems faced by farmers using the pure crop system. It is an option that can increase the profitability of farming and addresses the long-term goals of farmers for food security and sufficient income to meet their daily requirements. It is not capital-intensive compared to monoculture and also leads to the eventual rehabilitation of soil as well as provides other environmental benefits. These are important considerations to ensure that interventions introduced into a farming system are sustainable.

Key words: agroforestry, annual cropping, timber, banana (*Musa sp.*) corn (*Zea mays*)

**POLICY CONSIDERATIONS FOR THE DEVELOPMENT OF THE
SMALLHOLD LIVESTOCK INDUSTRY IN THE PHILIPPINES**

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ABSTRACT

Understanding the major issues affecting the performance of the smallhold livestock raisers and its support institutions is critical in designing policies that will effect the necessary changes to enhance the productivity and viability of the smallhold livestock industry. In this paper, the authors provide a holistic approach to the review and analysis of the different factors affecting the households' utilization of good animal genetics. The different actors in the industry that would affect or influence the smallholds' utilization of good animal genetics are identified.

The paper first analyzes the different policies, rules and regulations on genetic utilization in relation to the implementation of national livestock programs by various institutions and the flow of genetic resources to the small hold livestock raisers. The resources to provide the animal genetics operational problems and coping mechanisms adopted by different animal sources are then examined. The livestock extension delivery system on genetic resources is also analyzed. And lastly, it characterizes the smallhold livestock raisers and their circumstances.

Issues and concerns as a result of the interaction of the different variables operating within the system affecting all the stakeholders- the breed sources, extension providers and smallhold animal raisers are interrelated and complicated. These include; (1) provision of good animal genetics by government and private farm sources; (2) delivery of livestock extension services; (3) institutional gaps between research and extension towards a framework for enhanced technology transfer and adoption; and (4) smallholds' constraints in accessing and utilizing good animal genetics.

The paper provides eleven recommendations based on the analysis of policy issues and concerns. The recommendations likewise are formulated in recognition of the fact that the issues and concerns identified result from the interaction of the different variables or factors operating within the livestock industry system, affecting thereby all the major stakeholders- the breed sources, extension providers and more importantly the smallhold animal raisers.

Key words: Livestock, smallhold, genetics, policy, development

**CHANGES IN FARMING SYSTEMS AND PEKARANGAN
HOMEGARDEN IN THE CITARUM RIVER BASIN, WEST JAVA**

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ABSTRACT

The influence of rapid industrialization in the rural areas of developing countries has brought with it environmental degradation, particularly in the aquatic environment in relation to village life and farming systems. This is getting increasingly worse in Indonesia, and in Java in particular. A survey was conducted on the actual conditions in relation to the farming systems and *Pekarangan* (home garden) in the Citarum River basin of west Java.

Some changes in the farming systems and *Pekarangan* progressed under the situation, although it depended not only on the influence by the difference in the geographical conditions. In particular, the vegetable production area in the mountainous has a greater advantage because a rapid urbanization has resulted in greater demands on the supply of many kinds of vegetables.

Keywords: Bandung, natural conditions, vegetable production, water competition,
water environment