

A conceptual image for an e-agriculture book cover. It features a hand holding a small green plant with soil, symbolizing agriculture. In the background, a satellite is visible, representing technology and digital services. The entire scene is set against a light, hazy sky.

***E-Agricultural Services and Business***

## **The Use of Blog to Support Exchange of Information Technology and Marketing for Mangosteen Farmers in Singaparna District, Tasikmalaya Regency**

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### **ABSTRACT**

Mangosteen farmers, who are members of farmer groups of Artamukti in Puspahiyang, represents farmers who get help facilitate the strengthening of institutions from the Ministry of Agriculture in 2005. In fact many constraints faced by farmers in the field, especially relating to the acquisition of appropriate technology supporter of cultivation, post harvest and mangosteen marketing. In order to support of this effort, has been done the research relating to the use of blogs through the Internet at the level of that farmer groups of Artamukti. The study was conducted using descriptive analytical method by designing a blog for farmer groups of Artamukti then observed what the response obtained from the design. The experiment was conducted from June to November 2005 in the village of Puspahiyang, District of Singaparna Tasikmalaya regency. The results showed that the use of Internet technology can improve access to information and knowledge of farmers and commodity marketing opportunities for farmers mangosteen, but the constraint was the limited access time because it is still high cost of internet access at those locations and also the lack of person who hands on the information technology at that time due to background study of many farmers.

*Keywords: blog, technology and marketing mangosteen*

### **I. INTRODUCTION**

Development of agro-industry as superior commodity products is aimed in order to optimize the use of local resources with the intention of making it more competitive rather than products

that have high import content (Ministry of Agriculture, 2003). Therefore, for the development of competitive commodities is required the following criteria:

1. Based on the potential of local resources.
2. Has a high chance for access to domestic and world markets.
3. To produce high added value.
4. Supported by technology and qualified human resources.
5. Environmentally friendly, by adopting clean technology and environmentally friendly, the optimal agricultural waste, and implement good waste management.
6. Implement the principles of cooperation with a business orientation.
7. The administrative and economically feasible for business development.

In an effort to develop a new system of national agro-industry, Tasikmalaya District was selected as the pilot project for the development of superior horticultural commodities, especially the mangosteen fruit. Puspahiang in Tasikmalaya district was selected as regional development of the national fruit of superior commodities since 2005 by Ministry of Agriculture through the program with the facilitation of institutional strengthening of mangosteen farmer groups.

Development of agro mangosteen, especially in Tasikmalaya Regency is currently cultivated on a pilot model for the development of agro mangosteen nationally.

The mangoesteen development programs in 2005 aimed to:

1. Harvest and postharvest handling is achieved by groups of farmers / farmer group union

through the application of appropriate technology packages to the farmers group.

2. Formation of an independent business unit level to bridge the farmer groups union / gatherers and traders / exporters.
3. The achievement of marketing system network between farmers / gatherers and traders exporters.
4. The increased volume of requests mangosteen
5. Increasing farmers' income

The formation of farmer group union, as declared by the Ministry of Agriculture, is expected to contribute to the fulfillment of the functions of agricultural capital, fulfillment of production inputs, marketing of agricultural products, and including to provide various information needed by farmers (Syahyuti, 2007).

Mangosteen from puspahiang listed as fruit with superior quality if compared with the mangosteen from other regions in Indonesia. Even in some areas, the source of mangosteen seeds derived from such Puspahiang.

Excellence of this commodity is in fact not be enjoyed in full by most farmers in Puspahiang. It is because a few constraints, namely:

1. Limited access to the site of the garden
2. Lack of information that reveals the potential benefits of the mangosteen from Puspahiang
3. Development of farmer groups is not optimal, especially in shaping the production and marketing networks with various strategic partners, both in upstream and downstream sectors.
4. Limited access to information that supports the strengthening of practical knowledge for farmers in the upstream and downstream activities of his farming business.

One form of technology introduced to farmer groups to in relation with strengthening and mastery of technology in the upstream and downstream sectors in Puspahiang is by the application of computer technology and the Internet.

In the early stages socialization of network development program of mangosteen farmer

groups in these locations is known that the main obstacle. That is lack of education or the educational background of the farmers. In facts that the average farmer group members in that region have a background in elementary school education (Table 1.). This condition requires more serious attention because from various research shows that education levels are closely linked with the ability to receive knowledge and innovation diffusion.

Table 1. Average Education Level Member Farmer Groups in Puspahiang, Tasikmalaya District in 2005.

JENJANG PENDIDIKAN	KELOMPOK TANI SINAR MUSTIKA		KELOMPOK TANI SINAR PUSPA	
	Jumlah	%	Jumlah	%
Sarjana	2	5.00	4	16.67
SD	32	80.00	11	45.83
SMP	4	10.00	5	20.83
SMA	2	5.00	4	16.67
JUMLAH	40		24	

Source : Kastaman et.al. (2005)

One form of strategic solutions to address this ongoing mentoring activity is to improve the skills, knowledge and skills of mangosteen farmers in the future.

Several groups of farmers who are currently formed in Puspahiang join together in a group called "Gapoktan Artamukti".

One form of effective sustainable assistance for farmers group in the country is to disseminate information via Internet network.

To see how effective mastery of technology and managerial ability of farmers in the mangosteen farmer groups through the use of computer and internet, in Puspahiang has been done a research focused on the use of blogs to strengthen and expand access of information and also develop market for the farmers in that region.

This research are expected to know the effectiveness of information technology being

used to support technological mastery in cultivation up to marketing leadership in the future.

## II. METHODOLOGY

The study was conducted using descriptive analytical method by designing a blog for farmer groups Artamukti then observed what the response obtained from the design. Research conducted in the district of Tasikmalaya Regency Puspahiangan Artamukti on farmer groups have formed in the year 2005.

The study was conducted to observe the success of several parameters before and after the farmer groups were facilitated by the provision of information technology in the form:

1. A set of computers with modems
2. Blog pages specifically made for the farmer groups Arta Mukti

Parameters of success include:

1. Information technology capabilities
2. The ability to access information technology
3. Ability to communicate and form a partnership network
4. Added value in group activities and partnerships can be formed
5. Potential acquisition opportunities upstream and downstream product markets farmer groups

To measure the success of the farmer group union members conducted interviews to Gapoktan Artamukti member by distributing questionnaires to be filled.

Stages of research are as follows:

1. Identify problems at the level of farmer groups
2. Installation of computer and Internet network connection with the facility of "telkomnet instant" considering the limited telephone network in the village where the research done
3. Train some farmers to be the operator of the computer and internet connection
4. Designing a blog that contains the organization's profile and business activities undertaken by members of the farmer group union

5. Presenting information about pre and post harvest technology and marketing of mangosteen on blogs
6. Collecting audience response farmer group union
7. Conducting interviews to the farmer group union members about the information obtained has been made related to the blog
8. Data analysis and general conclusions

## III. RESULT

### 1. Computer Installation and Training for Members Farmers Group

Computer installation is intended to facilitate farmer group union (Gapoktan Arta Mukti) to be able to charge of computer-based information technology.

The result of a brief training to members of the group is known that the ability of computer control for farmers more quickly accepted by the members with a minimum educational background of SMA / STM. This is seen from the 10 participants who trained with the composition of educational backgrounds : four elementary schools, two junior high schools, two high school, an STM and a Bachelor. Only four that are technically able to master this technology within a period of two days from four days of training provided. The rest still not fully understood.



Figure 1. Computer Installation for Internet Training Purposes

## 2. Blog Design for Farmers Group

Instructors and researchers from the Laboratory of Agricultural Engineering System and Management, Faculty of Agroindustrial Technology, Padjadjaran University, created a blog site with an address for farmer group union as trial blog with address :

<http://manggis.orgfree.com> and  
[www.manggispuspahiang.blogspot.com](http://www.manggispuspahiang.blogspot.com).  
with contact addresses of farmers through e-mail:  
[dafamanggis@yahoo.com](mailto:dafamanggis@yahoo.com) and  
[artamukti@yahoo.com](mailto:artamukti@yahoo.com).

The background of blog construction in this occasion is to improve added value of the farmers by introducing information technology. In fact this technology can develop broad market faster and cheaper than what has been done as usual manner. It can reduce cost of transportation, promotion, marketing research, sales personel with adopting this information technology via internet.

The following information can give a picture of such importance in the era of information technology today. In this era of globalization, towards a free market, and computerized-based management of ICT (Information and Communication Technology), there are more benefit especially in:

- Administration and services is better that ever
- Better human resources capability and skill, so that more effective and efficient
- Give more financially accountable
- Better planning and controlling
- Decision process faster and more accurate

Mangosteen is one of the famous commodity crops and favorite in Indonesia and overseas markets. So that the commodity has a large demand. But in farmers view there are some problems faced especially in supply chain, marketing, and the procurement system or the availability of mangosteen for every season.

Until to day mangosteens supply chain from farmers to consumers is still controlled by big trader. Hopefully, with introducing this blog to farmers group can open new marketing channels,

where farmers can get direct orders from consumers with competitive price.

The aims of introducing internet and blog to farmers group is to extend information that can be accepted by farmers, such as:

- Distribution of information on mangosteen business prospects at local and global market
- Sharing of knowledge related to mangosteen pre and post harvet technology
- The expansion of marketing network
- In order to short cut marketing chain
- The Internet allows consumers to access information about the mangosteen for 24 hours a day, anywhere and anytime.

Some of the reasons that the web is used as one of the expansion of marketing network for mangosteen products are:

- Virtual catalog with communicative graphic appearance, so that products from the mangosteen will quickly distribute to the market
- It is possible to order directly with the system on-line.
- Opening new market opportunities for fresh product and processed product.
- Feedback from consumers will be more readily accepted, so the data collected in these files can be used more effective

Examples of blog sites to display Gapoktan Arta Mukti farmers group which has been designed in the early stages is as follows.



Figure 2. Example Feature Blog Sites of Gapoktan Artamukti on

<http://manggis.orgfree.com>

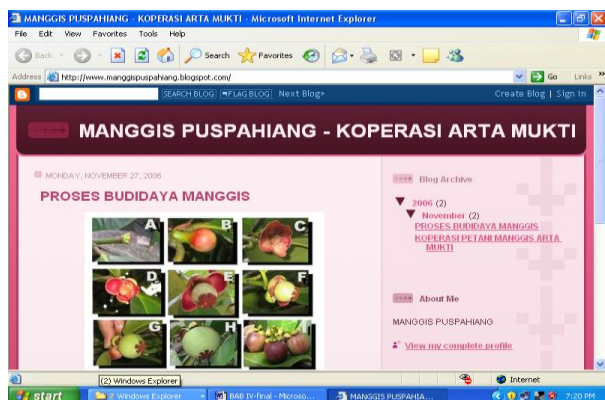


Figure 2. Example Feature Blog Sites of Gapoktan Artamukti on [www.manggispuspahiang.blogspot.com](http://www.manggispuspahiang.blogspot.com).

This Blog sites is still in its early stages and still continue to be improved, especially in content and object technology that farmers want to share

### 3. Users Response to Blog Sites

Based on the result of blog sites testing, there are some comment and respond from users who access information through the blog address, namely:

1. Blog sites are made is still too simple and needs to be further developed
2. The information presented should also concerning aspects of production, production capacity and procedures for doing business with the farmer group union partners
3. It is better if information on the blogs also show the location map of the garden and how to access service provider
4. Items promotion should be sold not only in the form of fresh but also processed product such as juice, extract mangosteen exocar, etc.
5. Blogs need to be made rubric of information technology in particular that can share information with members
6. Blog is better connected to many others sites that also have important information about the mangosteen
7. Market information (supply and demand information of mangosteen on global market).

### 4. Results Interviews with Members of Gapoktan Artamukti

From the questionnaires that are distributed to the farmaers of Gapoktan Artamukti can be summarized as follows:

1. The ability to adopt of information technology for groups of farmers in general are good enough
2. The ability to access information technology is good
3. The ability to communicate and form a good partnership network is good
4. Sustainability of using this blog sites and internet media of information by farmers in this occasion is still need further consideration. It is based on the fact that operational costs for Internet access with telephone networks in the research location (district Puspahiang Tasikmalaya regency), are still relatively expensive for the size of the farmers. Currently “telkomnet instant” internet access fees are 165 rupiahs per minute access (1,65 cent US Dollar for 1 US Dollar = 10.000 rupiahs), - or 9900 rupiahs, - per hour. While the cost of internet access in major cities this time around 3.000 rupiahs per hour of access.
5. Added value in group activities and partnerships that can be formed by this blogs activities is good enough
6. Potential acquisition opportunities upstream and downstream product markets farmer groups is quite good. This is one of them is known from the response of some exporters mangosteen which offers assistance in the form of commodity exports of fresh mangosteen, mangostess processed products such as juice, puree, syrup and the skin extract of mangosteen. These products are potentially marketed to USA by the partners of the farmers group.
7. During several months of a blog sites operated by the farmers, there was a lot information that the farmers can access and help them how to increase value-added of mangosteen products. Farmers can find out also what products that economically feasible to develop more further by farmers. Based on the results of economic analysis conducted on post-harvest products mangosteen, there are a few products can be processed from mangosteen such as: cocktail,

fruit syrup and fruit juice that farmers would get greater economic value income as compared with fresh mangosteen.

Some processed food products sold in the form of packaging as offered through Internet sites, among others namely :

1. Mangosteen juice
2. extract mangosteen
3. Mangosteen capsule or tablet
4. Xanthone nutrition

#### **IV. CONCLUSION**

In general, the results showed that the use of blog sites that are presented via Internet may improve access to information and knowledge of farmers and commodity marketing opportunities for mangosteen farmers, but the constraint is the limited access time because it is still high cost of internet access at that location and limited personnel who can mastering this information technology on the current environment. It is because of the educational background that is owned by farmers.

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