

## Situation of Sweet Potato Production and Business in Phu Cuong Commune, Tan Lac District, Hoa Binh Province

PhD. Vu Quynh Nam

Thai Nguyen University of Economics and Business Administration, Thai Nguyen, Vietnam.

**Abstract:** Phu Cuong commune is a mountainous commune in Tan Lac district, Hoa Binh province, about 20 km northwest of the district capital. Phu Cuong commune is a commune with a large area, a dense population, with a total of 1,619 households, 7,564 people, people living in 11 hamlets in the commune. With suitable climatic, soil and hydrological conditions for sweet potato, in recent years sweet potato has become a poverty alleviation and enrichment crop for many households in the commune, and is the main crop of the district. Tan Lac. Research and evaluate the current situation of sweet potato production and business of households in Phu Cuong commune, thereby proposing solutions to improve the efficiency and sustainable development of sweet potato plants for the commune in the coming time.

**Keywords:** Sweet potato, production and business efficiency, Protection of intellectual property rights, Phu Cuong commune.

### INTRODUCTION

Phu Cuong commune, Tan Lac district, Hoa Binh province is the commune with the largest sweet potato growing area in Hoa Binh province, with an area of 378 hectares (Department of Agriculture and Rural Development of Tan Lac district), with nearly a thousand households growing sweet potatoes. Aware of the potential and strengths of sweet potato plants for people in Phu Cuong commune, Tan Lac district in particular, Hoa Binh Provincial People's Committee in general, on July 29, 2021, Hoa Binh Provincial People's Committee issued Decision No. 1585 /QD-UBND on approval of budget estimates for science and technology, including the project "Building, managing and developing the certification mark "Phu Cuong sweet potato" used for sweet potato products of Phu Cuong commune and the vicinity of Tan Lac district, Hoa Binh province" and Contract No. 11/2021/HD - KHCN dated August 16, 2021 on the implementation of the project "Building, managing and developing trademarks" certification "Phu Cuong sweet potato" for sweet potato products of Phu Cuong commune and its vicinity, Tan Lac district, Hoa Binh province" between the Department of Science and Technology of Hoa Binh province and the University of Economics and Management doing business to build a brand name for sweet potato products of Phu Cuong commune, thereby helping to protect the sweet potato brand for people in Phu Cuong commune and promoting the product widely on the Internet market. The research is the result of an approved project, thereby helping to raise awareness for people in the commune about trademarks, brand protection and the role of production according to VietGAP standards, thereby promoting Promoted

and introduced products bearing the certified brand name "Phu Cuong Sweet Potato" on the domestic and foreign markets.

### RESEARCH APPROACHES AND METHODS

#### Approach

The research is approached along the value chain. The production and business activities of sweet potato growing households in Phu Cuong commune are approached according to the value chain: from seed selection, care, harvesting, preservation and consumption, from which the strengths can be seen, weaknesses, limitations and causes to propose solutions for each actor in the chain to increase the value of local sweet potato products.

The research methods used are descriptive statistics and comparative methods to describe the current situation of production and business activities of potato growing households in Phu Cuong commune. Collected data includes both primary and secondary data.

Secondary data is collected from reports of Tan Lac district People's Committee, Tan Lac district statistical yearbook; Primary data was collected through survey results of 368 sweet potato growing and trading households in Phu Cuong commune, including: number of household workers, potato varieties, potato growing method, harvest, market,.... Thereby, it will create an overall picture of sweet potato production and business activities in Phu Cuong commune and propose solutions to improve the efficiency of production and business activities of sweet potato growing households in the area in the near future.

**RESEARCH RESULTS**

**Socio-Economic Results of Phu Cuong Commune**

Phu Cuong commune is a purely agricultural commune, economic types are still unsustainable, agricultural production is small, mainly dependent on nature, the transformation of crop and livestock structure is still slow. And is not uniform, has not

yet formed an agricultural production area for goods of high economic value.

From the end of 2019 until now, the complicated situation of the Covid-19 epidemic has been affecting many aspects of the economy and society of the whole country in general and Phu Cuong commune in particular, leading to the to many production and business activities of the commune.

**Table 01:** Production value by economic sector in Phu Cuong commune in the period of 2019-2021  
Unit: Billion VND

	2019	2020	2021	Compare (%)		
				2019/2020	2021/2020	Average 2019-2021
Agriculture, forestry, fisheries	176,495	180,71	184,2544	102,39	101,96	102,17
Construction - industry	44,123	58,19	133,4256	131,89	229,28	173,89
Service - product tax	73,541	122,51	50,83	166,59	41,49	83,14
<b>Total</b>	<b>294,159</b>	<b>306,28</b>	<b>317,68</b>	<b>104,12</b>	<b>103,72</b>	<b>103,92</b>

Source: Phu Cuong Commune Socio-Economic Results Report

According to the socio-economic results report of Phu Cuong commune over the years, the total production value of the commune in the period of 2019-2021 has grown at an average rate of 3.92%. In which, the value of agriculture, forestry and fishery industry increased by 2.17%, reaching VND 184,254 billion in 2021; the value of industry - construction increased by 73.89%. In 2019, the value of industry - construction of the whole commune reached 44,123 billion VND, in 2021 it reached 133.43 billion VND. However, the

service industry - product tax was heavily affected by the Covid-19 pandemic, down 16.86% of the total industry value.

Thus, it can be seen that, despite being affected by diseases and natural disasters, the agriculture, forestry and fishery industry in Phu Cuong commune is still growing. This confirms the interest of Phu Cuong commune government, Tan Lac district People's Committee in supporting and promoting local socio-economic development.

**Table 02:** Cultivation area of Phu Cuong commune in the period of 2019-2021  
Unit: Ha

	2019	2020	2021	Compare (%)		
				2019/ 2020	2021/ 2020	TB 2019-2021
Paddy	316,00	335,00	355,70	106,01	106,18	106,10
Corn	815,70	815,70	870,00	100,00	106,66	103,27
Sweet potato	475,00	460,00	378,00	96,84	82,17	89,21
Peanut	59,30	68,00	57,00	114,67	83,82	98,04
Sugarcane	11,20	20,00	20,00	178,57	100,00	133,63
Vegetable	98,20	94,00	167,00	95,72	177,66	130,41
Other annual crops	90,60	71,00	382,44	78,37	538,65	205,46
<b>Total</b>	<b>1.866,00</b>	<b>1.863,70</b>	<b>2.230,14</b>	<b>99,88</b>	<b>119,66</b>	<b>109,32</b>

Source: Phu Cuong Commune Socio-Economic Results Report

In the period of 2019-2021, the cultivated area of the commune increased significantly, from 1,866 ha (in 2019) to 2,230.14 ha in 2021, the average growth rate of the period reached 9.32%. In which, maize, potato and rice still occupy the largest area in the commune. However, sweet potato plants are

tending to decrease in area. In 2019, the area of sweet potato cultivation in the whole commune reached 475 hectares; in 2021 will decrease to 378 hectares, the average rate of decrease in the period of 2019-2021 is 10.79%. Therefore, in order to expand the area of sweet potatoes, it is necessary

to have a product protection policy, to create a sustainable output market for farmers in the coming time.

### Actual Situation of Sweet Potato Production and Trading in Phu Cuong Commune

Phu Cuong commune is the commune with the largest sweet potato growing area in Tan Lac district with an area of 378 hectares (in 2021), mainly in the villages: Khieng, Tam, Bui... Currently, the whole commune has 800 households participating in planting. Sweet potato, total sweet potato production of the commune is 2,570 tons, yield is nearly 70 quintals/ha (Department of

Agriculture and Rural Development of Tan Lac district), average selling price is from 6,000 VND/kg - 8,000 VND/kg . The varieties of potatoes grown here are Hoang Long, hyperplasia and purple sweet potatoes... In which, the varieties grown are mainly proliferative varieties, because this variety gives high yield and quality aromatic tubers. Delicious, delicious and easy to sell, on average, households earn from 45-70 million VND per hectare. This is really a crop with high economic value and high efficiency for the people here and many households in the village who have escaped poverty thanks to sweet potatoes, etc.

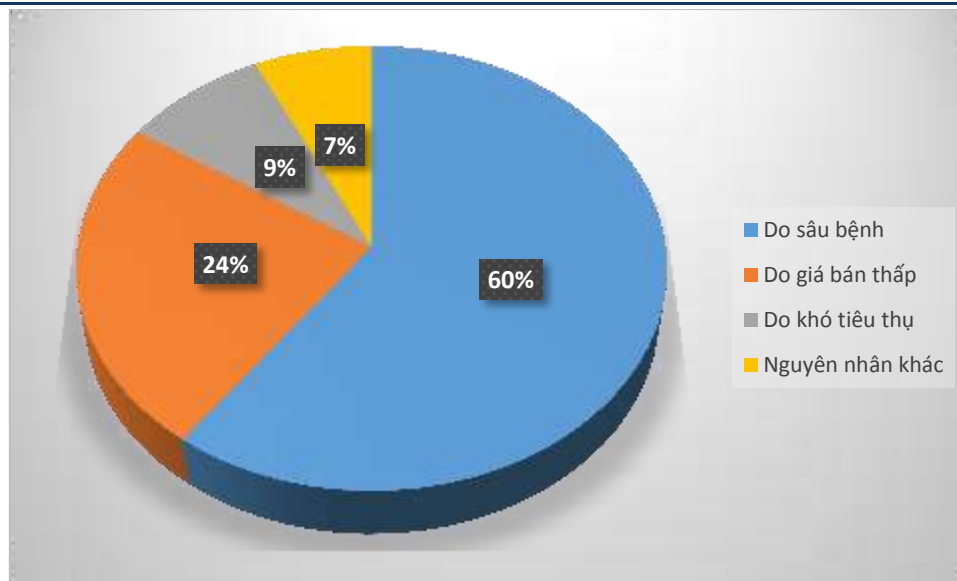
**Table 03:** Status of growing sweet potatoes in hamlets of Phu Cuong commune

Area	2019		2020		2021	
	Area (ha)	No of households (households)	Area (ha)	No of households (households)	Area (ha)	No of households (households)
Khiêng	211,00	145	240,00	136	189,00	132
Sung Mũi	20,50	96	20,00	90	18,00	87
Buổi Cại	58,50	143	54,00	120	40,00	118
Tâm Bát	72,57	169	63,00	148	57,00	145
Vó	28,00	87	22,00	72	18,00	71
Lâm Lưu	5,00	18	2,00	10	0,85	9
Báy	21,00	78	13,00	73	10,00	73
Vin Bái	40,00	125	32,00	120	32,00	126
Trao	2,00	11	1,00	7	0,60	7
Khanh	2,00	13	0,50	8	0,65	8
Khởi	14,43	25,00	12,50	25	11,90	24
<b>Total</b>	<b>475</b>	<b>910</b>	<b>460</b>	<b>809</b>	<b>378</b>	<b>800</b>

**Source:** Author's survey

The survey results on the potato growing area in Phu Cuong commune show that the hamlets that grow a lot of potatoes in the commune are Khieng hamlet, Tam Bat hamlet, Vin Bai hamlet and Bui

Cai hamlet. As for the hamlets: Trao hamlet, Khanh hamlet and Lam Luu hamlet are hamlets with a very small area and number of households growing potatoes.



**Figure 01:** Reasons for households to reduce the size of sweet potato growing area in Phu Cuong commune  
**Source:** Author's survey

Survey results on the causes of the number of households reducing the size of the potato growing area and the households not growing potatoes: 60% of surveyed households answered that the reason was that in 2020, 2021, sweet potatoes in the commune area were very pest-infected. many, mainly rootworms and leaf rollers, etc., leading to a significant reduction in yield and quality of

potatoes; 24% of the people surveyed answered that the selling price of sweet potatoes was low, because selling to traders was pressured; 9% of people surveyed answered that sweet potatoes are difficult to consume at the moment; 7% of people surveyed gave up growing sweet potatoes due to switching to business or growing other crops: planting corn, cassava.

**Table 04:** Yield and yield of sweet potato in hamlets of Phu Cuong commune

Area	2019		2020		2021	
	Quantity (hundredweig ht)	Yields (hundred weight /ha)	Quantity (hundredweig ht)	Yields (hundred weight /ha)	Quantity (hundredweig ht)	Yields (hundred weight /ha)
Khiêng	12.660	64,3	14.400	63,8	12.852	69,5
Sung Mũi	1.230	55,6	1.200	56,4	1.224	63
Bưởi Cại	3.510	63,2	3.240	64	2.720	70
Tầm Bạt	4.354	60,5	3.780	62	3.876	69
Vố	1.680	53,6	1.320	55	1.224	65
Lâm Lưu	300	55	120	54	58	63
Báy	1.260	58,8	780	57	680	67,6
Vìn Bái	2.400	51	1.920	53	2.176	68,8
Trao	120	55	60	54	41	64
Khanh	120	53	30	53	44	66
Khởi	866	58,50	750	59	809	68
<b>Tota l</b>	<b>28.500</b>	<b>60</b>	<b>27.600</b>	<b>60</b>	<b>25.700</b>	<b>68</b>

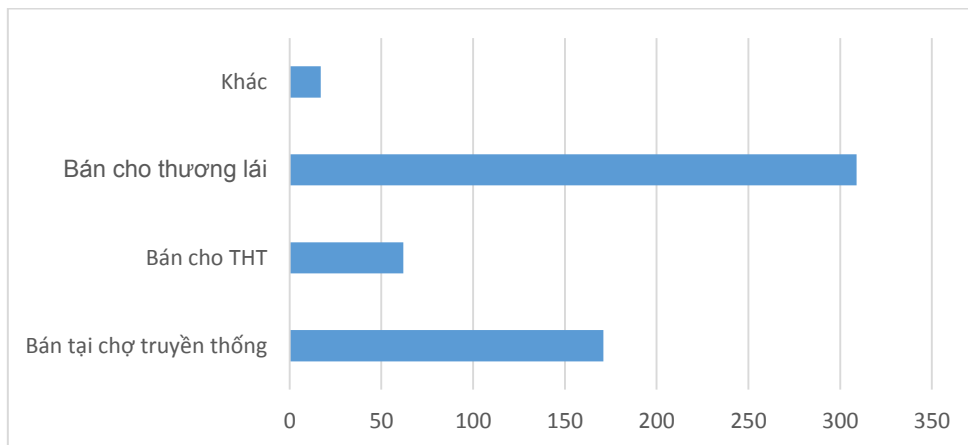
**Source:** Synthesis of Phu Cuong Socio-Economic Results Report and the author's survey results

Although in the period of 2019-2021, the sweet potato area of Phu Cuong commune decreased, the output decreased from 28,500 quintals in 2019, by 2021 the output decreased to 25,700 quintals. In which, there are a number of hamlets with a sharp decrease in potato growing area, namely Lam Luu hamlet, Trao hamlet, Khanh hamlet and Bay hamlet, leading to a sharp decrease in sweet potato production of these hamlets. 58 quintals; Giao hamlet reduced from 120 quintals to 41 quintals; Khanh hamlet from 120 quintals to 44 quintals; From 1,260 quintals to 680 quintals, it can be said that in some hamlets of Lam Luu, Trao and Khoi, the area of potato cultivation is still very low. The reason is that in addition to the cause of the Covid-19 epidemic, the potatoes are difficult to consume, the rate of sweet potatoes is tuberous, the reason is that in 2021, at the beginning of the year, the weather is complicated, cold, and harmful for a long time. Due to the dry weather, production

progress is slow. During the year, many heavy rains in April, May, July and August have significantly affected the crops of people in the commune. However, the yield of sweet potato in the commune still increased sharply, from 60 quintals/ha to 68 quintals/ha. Typically, there are some communes with an output of approximately 70 quintals/ha: Khieng hamlet, Buoai Cai hamlet, Tam Bat hamlet. This is a good sign for the commune in encouraging farmers to expand the scale of potato cultivation, in order to bring high economic benefits to the people here.

**Sweet Potato Consumption Market in Phu Cuong Commune**

The survey results of 368 potato growing households in Phu Cuong commune show that the main sweet potato consumption market of sweet potato growing households is to sell to traders who come to buy in the villages.



**Figure 02:** Sweet potato consumption market of Phu Cuong commune

**Source:** Author's survey

The results show that, 83.97% of surveyed households sell sweet potato to traders; 46.47% of households sell at local traditional markets; 16.85% of households sold to the cooperative group in the area, because currently in Phu Cuong commune, there is a sweet potato cooperative group in Khieng hamlet with 18 participating households; 4.62% of households sell to other localities through shops, relatives, or online. In which, many households both sell potatoes to traders, sell at traditional markets, and sell to cooperatives. Therefore, sweet potatoes of Phu Cuong commune have been known by the market in many localities with the average selling price of 6,000-8,000 VND/kg.

However, when asked about production according

to VietGAP standards, only 2.99% of respondents said that they know and are applying VietGAP, these are 11 households in Xom Kieng that have established a cooperative group. To support each other to produce and consume sweet potatoes, the remaining 97.01% of households do not know about production according to VietGAP standards. In addition, 100% of surveyed households did not understand and had never heard of the brand, but when asked if the household wanted to participate in using the certification mark "Phu Cuong sweet potato" when the locality was granted a Certificate by the National Office of If not, then 100% of households want to learn and participate in using the certification mark.

## CONCLUSIONS AND SOLUTIONS

Analysis of the current situation of sweet potato production and trading in Phu Cuong commune, Tan Lac district, Hoa Binh province shows that:

Sweet potato is a strong crop of the commune in recent years, creating jobs and increasing income for farmers in the area. However, since the end of 2019 until now, the situation of the Covid-19 epidemic has been complicated, along with changes in the weather, affecting the production scale and quality of agricultural crops in general, the quality the commune's sweet potato in particular. Therefore, Phu Cuong commune and Tan Lac district People's Committee need to have policies to support potato growers in terms of care techniques, ways to prevent pests and diseases on sweet potato plants and support product consumption through a number of solutions.

### The Following Law

Firstly, encourage and support households to grow potatoes according to VietGAP standards to limit pests and diseases and limit the use of pesticides in the process of taking care of sweet potatoes, ensuring that the commune's sweet potatoes meet product quality requirements of the domestic consumer market and meet export standards.

Secondly, it is necessary to propagate, encourage and support people to join together to form groups of similar interests, cooperative groups, and sweet potato cooperatives to mutually support each other in seed varieties, care techniques, etc. care, harvesting experience, etc., thereby creating the solidarity of farmers in production and business.

Third, support people to use the certification mark "Phu Cuong sweet potato" for sweet potato products of Phu Cuong commune when the sweet potato product has been approved by the National Office of Intellectual Property - Ministry of Science and Technology. recognition, thereby raising awareness for people in the area about protecting the brand of their products, and at the same time want to improve the reputation of Phu Cuong sweet potato products in the market.

Fourth, support people in the output market for sweet potato products through connecting local sweet potato products at agricultural product fairs and exhibitions in provinces and cities; supporting the introduction, promotion, and introduction of qualified sweet potato products into supermarket chains across the country; support promotion at a number of websites of Vietnamese agricultural products; ... thereby, improving the value and

reputation of Phu Cuong sweet potato products after the product is protected by intellectual property rights.

## REFERENCES

1. Economic and Infrastructure Division of Tan Lac District, Economic Results Report of Tan Lac District, Hoa Binh Province
2. Statistical Office of Tan Lac District. "Statistical Yearbook of Tan Lac District, Hoa Binh Province." (2019-2021).
3. Phu Cuong Commune People's Committee. "Report on socio-economic situation of Phu Cuong commune in 2019, directions and tasks in 2020." (2019)
4. Phu Cuong Commune People's Committee. "Report on socio-economic situation of Phu Cuong commune in 2020, orientation and tasks in 2021." (2020)
5. Phu Cuong Commune People's Committee. "Report on socio-economic situation of Phu Cuong commune in 2021, orientation and tasks in 2022." (2021).
6. Suu, B.T., Giang, V.Q., Lien, V.P., Huy, D.T.N. and Lan, H.T. "The Auto-infection Trap with the Native Entomopathogenic Fungus, *Beauveria Bassiana* for Management of Coffee Berry Borer (*Stephanoderes Hampei* Ferrari) in the Northwest Region of Vietnam." *Alinteri Journal of Agriculture science* 36.1 (2021): 191-198.
7. Trung, N.D., Huy, D.T.N., Hang, N.T. and Ha, L.T. "Effective Management Via a Business Model of Food and Drink Processing from Lychee Products in the Northern Areas of Vietnam." *Alinteri Journal of Agriculture Sciences* 36.1 (2021): 406-411.
8. Dat, P.M., Mau, N.D., Loan, B.T.T. and Huy, D.T.N. "Comparative China Corporate Governance standards after Financial crisis, corporate scandals and manipulation." *Journal of security & sustainability issues* 9.3 (2020).
9. Nam, V.Q. and Huy, D.T.N. "Solutions to Promote Startup for the Youth in Minority and Mountainous Region of Thai Nguyen Province-Vietnam." *Journal of Contemporary Issues in Business and Government/ Vol 27.3* (2021): 2114.
10. Ha, T.T.H., Khoa, N.B., Huy, D.T.N., Nhan, V.K., Nhung, D.H., Anh, P.T. and Duy, P.K. "Modern corporate governance standards and role of auditing-cases in some Western European countries after financial crisis, corporate scandals and manipulation."

- 
- International Journal of Entrepreneurship* 23.1S (2019).  
11. Hang, T.T.B., Nhung, D.T.H., Huy, D.T.N., Hung, N.M. and Pham, M.D. "Where Beta is going—case of Viet Nam hotel, airlines and tourism company groups after the low inflation period." *Entrepreneurship and Sustainability Issues* 7.3 (2020): 2282.

**Source of support:** Nil; **Conflict of interest:** Nil.

**Cite this article as:**

Nam, V.Q. "Situation of Sweet Potato Production and Business in Phu Cuong Commune, Tan Lac District, Hoa Binh Province." *Sarcouncil Journal of Entrepreneurship and Business Management* 1.1 (2022): pp 13-19