

VIET NAM SPICES



11th World Spice Congress

9 to 11 Feb 2012

The Westin Pune Koregaon Park, Pune, Maharashtra

“Sustainability & food Safety - Global initiatives”

**AHBT & UNISPICE
Vietnam**

A lush green plantation of spice plants, likely cardamom, with rows of plants stretching into the distance under a bright sky.

VIETNAM SPICES

SUPPLY CHAIN CHALLENGES

AHBT & UNISPICE - Vietnam

VN PEPPER - SUSTAINABLE SUPPLY

In Vietnam, many farmers do rather good job in managing soil + water + crop + nutrition+ pest & diseases... + cost of production, food safety... However, in order to gain more achievements, they have to pay much more care in the areas of: PRE-POST HARVEST, TRACEABILITY..

Processors, besides those points mentioned above, will have to monitor domestic + international consumption, production, market changes ...

VN PEPPER – AREA MAP 2012 est.

Province	Plantation 2011 (ha)	Plantation 2012 (ha) est.
Binh Phuoc	9,566	10,140
Gia Lai	5,832	5,794
Dak Lak	4,898	4,850
Dak Nong	7,915	8,000
Ba Ria Vung Tau	6,039	7,370
Dong Nai	7,021	8,125
6 Provinces	42,171	44,279
Others	10,000	10,000
Total	52,171	54,279

- 2012 planting area est. increased by 2000 ha,
 - VN production 2012 est. 110.000 Mt (VPA Estimates presented at IPC Nov 2011)
 - However, Trade estimate about 125.000 Mt



In Ba Ria – Vung Tau area, unseasonal rains damaged the crop by 30% -50% , but it is compensated by the increase in planting areas in Gia Lai – Daklak.

VN PEPPER - CHALLENGES ON SOIL

MANY FARMERS DO NOT HAVE MUCH CHOICE IN SELECTING THE LAND because land for pepper is limited. They have to accept low/flat sites, low soil depth, clay, pebble, lateritic, steep slope... and they need to rejuvenate it.

Many farmers can manage soil very well like controlling pH, moisture... they even plant pepper in rocky terrain ...but not all farmers...

PEPPER ON ROCKY TERRAIN



VN PEPPER - WATER MANAGEMENT

Water can be controlled well by many farmers such as irrigation, drainage systems....but it is hard for some of them. Still there are issues like erratic rainfall, availability of water and quality planting material...

Farmers are trying to avoid water contamination, especially from nearby infected gardens.

Water stagnation for more than 24 hrs will damage the pepper vines.

VN PEPPER – COVER CROP



Source : Dr Nguyen Tang Ton - IAS

PEPPER CULTIVARS IN VIETNAM

CULTIVARS	BR - VT BINH PHUOC	DAKLAK GIA LAI	QUAN G TRI	Density g/l	Berry size mm	Kg/vine	harvest yield mt/ha	Ripping time	Note
Vinh Linh	+++	+++	+++	520 - 550	4.5 -4.8	3- 5	3-5	Middle	Good adoption, low disease
Trung Loc Ninh	++	+++	++	500 - 520	4.5 -4.6	3-4	2.5-4.5	Early	Easy to get foot rot
Tieu Se (maybe is Kuching from Malaysia)	+++	+	++	450 -470	4.4 -4.5	2-3	3-4.5	Late	good adoption, early fruit setting, easy to get foot rot, not popular now
India (Karimunda, Panniyur 1)	++	+	+	470 - 480	4.5 - 5	2 -3.5	3-4.5	Early	grow well, low disease, thick husk

Note: - * **average pepper yield black/green: 32% - 35% (100 gr green, get 32-35gr black)**

- Density depends on farming method + harvest time
- Quang Tri pepper suitable best for grinding
- Vinh Linh and Trung Loc Ninh have big size and high density suitable for making ASTA, clean, white pepper

Source: - Dr. Nguyen Tang Ton report on Selection Cultivars and Farming Practice for *Sustainable Pepper Industry 2010 (P 9)*,

Control Pepper Disease Infected from Soil 2011 (P 6)

- Mr. Thinh – Farmer (Binh Phuoc) + Mr. Thanh – Farmer (BRVT) + Mr.Tat – Farmer (Dong Nai)

VN PEPPER – PACKAGE OF PRACTICE

- Many farmers apply pesticides & herbicides under guidance of authority /experts / scientists.

- Some inefficient methods in farming
- -> Low yield & can not avoid diseases
- -> Need help from IAS, VPA, Agri Extension Dept

- Producers check pesticide/herbicide residue

Note: - IAS : Institute of Agriculture Science for Southern VN
- VPA : Vietnam Pepper Association

VN PEPPER DISEASES

COMMON NAME	LATIN NAME	DESTROYING LEVEL	ROOT	LEAVE	STEM	BERRY	POPULARITY
FOOT ROT	Phytophthora sp., ...	HIGH	X				+++
SLOW DECLINE	Meloidogyne sp.+ Radopholus similis.... Fusarium sp., Pythium sp.,	MEDIUM	x				+++
ROOT MEALY BUG	Pseudococcus citri., ...	MEDIUM	x	x	x	x	+++

NOTE: +++ very popular - Diseases mainly occur in rainy season, all areas.

Source : Report of Dr Nguyen Tang Ton – IAS VN

PEST & DISEASE MANAGEMENT

- **Exemplary Services of Agri Extension Dept / IAS / VPA/Western Highland Institute... appreciated**

- **No pepper variety resistant 100% to Foot Rot & Slow Decline in VN**

- **Diseases can break out in strange weather**

VN PEPPER

CURRENT SOIL NUTRITION SCENARIO

Chemical fertilizers sometimes over-used

high yield but
vines exhausted

more diseases

vines die sooner

IAS / VPA / Government institutes offers training courses on soil nutrition to pepper farmers countrywide

VN PEPPER - HARVEST & PROCESSING

Cleaner environment in pepper processing

Tarpaulin/plastic sheets /canvas -> should be used popularly

Berries harvested: some turn yellow

Small drying yards : pepper not fully dried

Quality of pepper differs from farmer to farmer

Canvas on
ground
during
harvesting
green pepper



VN PEPPER - TRACEABILITY

❖ Collect from different sources/small quantities

-> Combining these small lots to make 1 batch

-> Able to do traceability via area/brand name system

❖ No documentation in planting/harvesting

❖ Some farmers not reveal recipe of their GAP

❖ Buy from selected collectors + farmers

VN PEPPER - FOOD SAFETY

- **SOME PEPPER PLANTS HAVE HACCP, BRC, ISO, STERILIZATION SYSTEM...& THEIR OWN LAB TO CHECK PRODUCTS BEFORE EXPORT -> SAFETY IS STILL IN CONTROL**

- **FARMERS' KNOWLEDGE UPGRADED**
- **SOME USE 100% FARM YARD MANURES**

VN PEPPER - VietGAP

Many farmers following GAP, using organic inputs

Some farmers implement VietGAP NOW provided financial support from exporters/ customers

If it is VietGAP certified, whether customers pay a premium?

VN PEPPER - IMPACT OF WEATHER CHANGES



Storms /rain heavier, more often, diseases break out easily

unseasonal rains -> yield drops

Longer dry season -> higher cost

COST DRIVERS OF PRODUCTION (1)

- Labor charge up 48% -> labor welfare + bonus up
- Electricity up 6% + water up 10%
- Inflation 18% /year
- Depreciation of new gardens + high investment cost for remote , poor land



Result : pepper cost 2012 increased 20% compared to pepper cost 2011

Note: Decree No. 70/2011/NĐCP dated 22 Aug 2011, Circular 42/2011/TT-BCT Ministry of Industry & Trade dated 19 Dec 2011, Circular 103/2009/QĐ – UBND People Committee dated 21 Dec 2009.

COST DRIVERS OF PRODUCTION (2)

BANK INTEREST: 18% PA FOR VND BORROWINGS & 6.5% PA FOR US\$. CREDIT 3 MONTHS MAX. HOW CAN PRODUCERS HOLD STOCK EVEN FOR REGULAR TRADE?

SMALL COMPANIES LACK OF: MARKET INFORMATION, REPUTED BUYERS, DOMESTIC + INTERNATIONAL MARKET CHANGES...

VIETGAP WHEN APPLIED

MARKET PRICE IN DIFFERENT PATTERNS

VN COMMODITY EXCHANGES TO HEDGE & TRADE PEPPER

VN PEPPER MARKETING STRATEGY 2012

- Many VN farmers with quick info can control relatively price level, time to stock + sell
- Small collectors/traders/producers -> bottom price to stock first, sell later, or do “back to back” transactions
- Building Brand Name for VN pepper
- VietGAP premium price model formalised
- VN - a big pepper exporter in the world

VN Turmeric Cultivation Area

- Est. 600 ha
- In same pepper provinces but on poor/ remote land
- Production 2011:
est. 500 tons dry



VN Turmeric Crop

Planting: onset of rainy season May - Oct

Harvesting:

- South East : Jan - Apr
- Central : Mar - Jun

Yield: 2.5 – 4 tons dry / ha, 15 – 20 tons fresh/ha

Production flow: Harvesting – Cleaning – Boiling (1.5 hours) – Drying(14 days) – Polishing (1.5 hours) – Packing

Curcumin : 5% - 6%

VN Turmeric Challenges

Small quantity

Very simple
processing way

Few value added
products

No domestic &
international market
info

Cultivation/Price Cycle:

price high, cultivate more -> more production ->
low price - -> reduce planting -> not much
products -> high price again -> loose \$/interest

VN CASSIA - CULTIVATING AREA

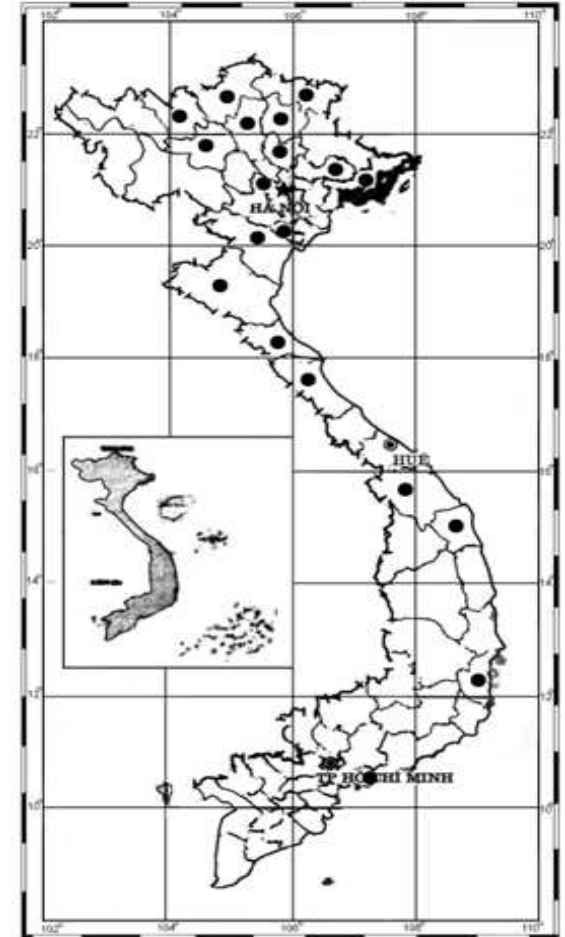
❖ 1998 : 62.000 ha

❖ Export :

- about 7 mts essential oil/year

- 2008: 14.400 mts different grades

Source : Statistic Office General



VN CASSIA CROP

Yield : 4 - 5 mt/ha

Harvest time : Mar – Nov

Oil content : 1% - 5% (E)-cinnamaldehyd 70-95%



- Forms : tube, pressed, cuts, slices, broken/split, powder...
- Diseases: Phytophthora cinnamomi, Fusarium spp...



VN CASSIA CHALLENGES



- **Quality not uniform, difficult to ascertain VO level**

- **Not many high quality products**

- **Lack of processing facilities, transportation, labor, investment, no Spice Association, no government guidance, brand name...**

- **Weak market forecast + info systems, few traditional buyers, price fluctuation, contract integrity, Cultivation/Price Cycle...**

- **Return to farmers is low, longer period**

GENERAL CONCLUSION

**Thanks to hard work of farmers, scientists, ...
Vietnam -> export more spices**

**Try more to develop high quality products + achieve
traceability**

**WE WOULD LIKE TO GET YOUR CO-OPERATION TO
BUILD UP “ WIN-WIN” RELATIONSHIP**

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- Farmers: Mr.Gia, Mr.Thanh (Daklak), Mr.Phong (Phu Quoc), Mr.Sinh (Quang Tri), Mr.Thinh (Binh Phuoc), Mr Thang (BR-VT)....
- Sources : Statistic Office General, Ministry of Forestry...Master Nguyen Quoc Binh + Bachelor Do Manh Cuong

THANK YOU FOR YOUR ATTENTION

PLEASE CONTACT US :

Mrs Bich **bich@anhuybt.com.vn**

Mr Jojan **jojan@unispicevn.com**

Mrs Chi **aquaagro2@hcm.fpt.vn**

Ms Yen **yen@unispicevn.com**

Ms Tram **tram@unispicevn.com**