

## Pepper Supply and Demand Situation 2009

Speech by Alfons van Gulick at the  
2009 Convention of the American Spice Trade Association (ASTA)  
Tucson, Arizona, 25 April 2009

Ladies and Gentlemen,  
dear ASTA Friends,

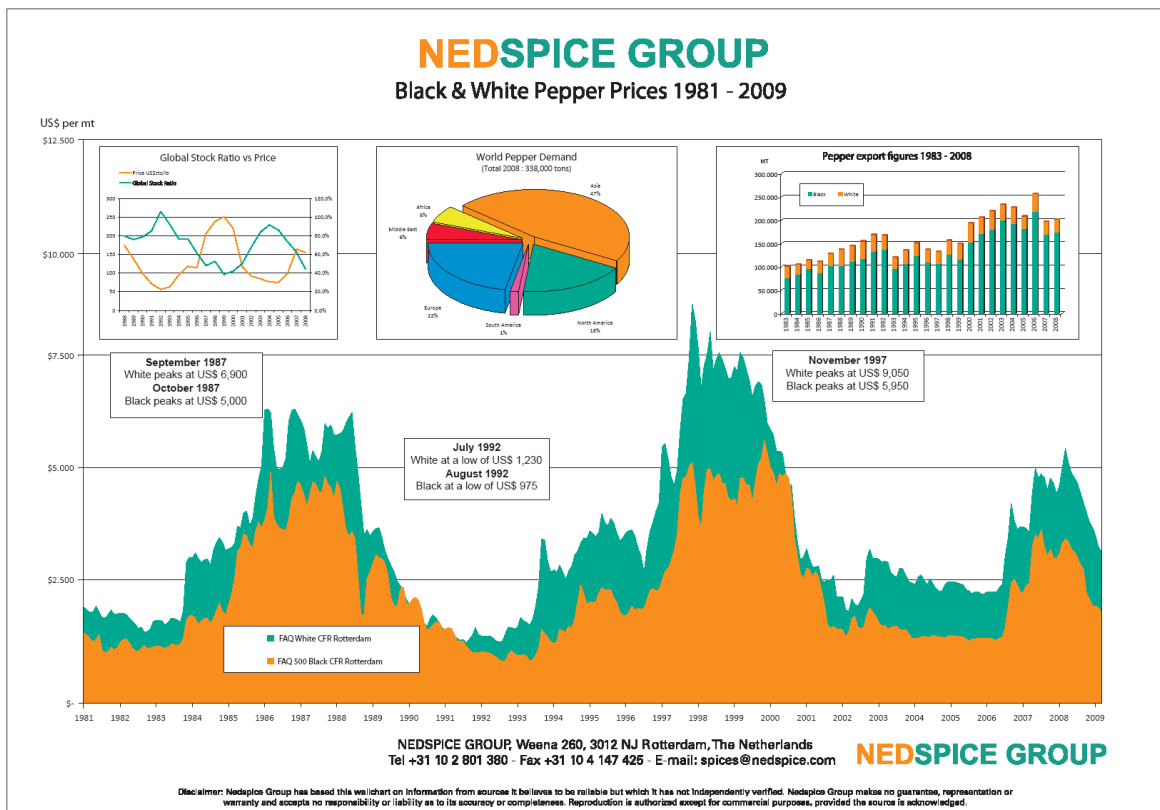
I am honored being asked to give this year's presentation on the pepper crop report.

During the next 30 minutes I will show you quite a few graphs and statistics. However before I do so I would like to make the following comment:

In the spice business to mention or to discuss matters that are perceived to be 'facts' is a tricky thing to do. The only data we have to base ourselves on are a limited number of export and import statistics. All the rest needs to be derived from that. At Nedspice we keep a database of information going back some 30 years. This enables us to look at trends and to compare actual numbers with estimates. In doing so we hope to have developed a set of data we believe to be fairly correct.

My intention is to discuss the following:

- 1) Review 2008
- 2) Production and Supply 2009
- 3) Consumption
- 4) Stocks
- 5) White pepper
- 6) Trends in the pepper market



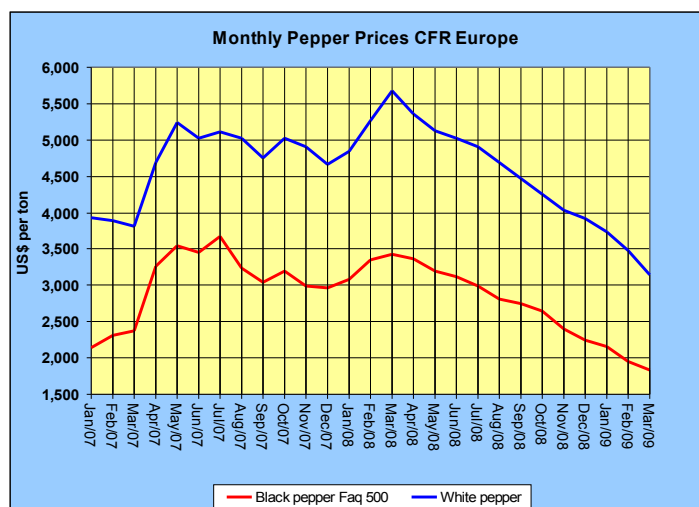
## Review 2008

I do not think I am far beside the truth when stating that most of us who claim to understand the pepper market were quite bullish last year at this gathering. Prices were ruling at around the Usd 4000 per ton mark, which by many was even considered to be a buying opportunity. However, how wrong we were. Within a period of six months prices more or less halved.

To put things into perspective let's have a look at this chart (see above). You may have seen it before, but this is an updated version. Free copies are available at the ASTA desk outside this room.

During the middle of 2006 prices started to increase because supply was short of demand and consequently global stocks started to decrease. If we zoom in on 2008 prices came down starting March all the way to December.

For 2008 the fundamental supply and demand situation was not much different from that during the preceding 2 years. So prices should have been stable or even gone up, but they did not... How can this be explained? Were pepper fundamentals misjudged or were other factors at play?



With the benefit of hind sight we can think of the following, partly related reasons,

- 1) Economic situation in the largest producing country i.e. Vietnam
- 2) USA Banking crisis starting to impact the world economy
- 3) Indonesian situation

### ad1) Vietnam:

During the last quarter of 2007 Vietnam's economy was starting to overheat. Inflow of registered foreign direct investments to the tune of 50 billion Usd, an increase in the price of imported goods and a gross domestic product growing at the pace of around 9% drove up inflation to around 27%. The Vietnamese authorities were afraid of hyper inflation and decided to hit the brakes. Within just a matter of a few months interest rates increased to 24%, bank borrowings in USD were forbidden and loans in the local currency Dong were restraint or even called in. Suddenly cash was king. The effect of this was that many stockholders had to sell out all or part of their inventory in order to raise cash to pay off loans.

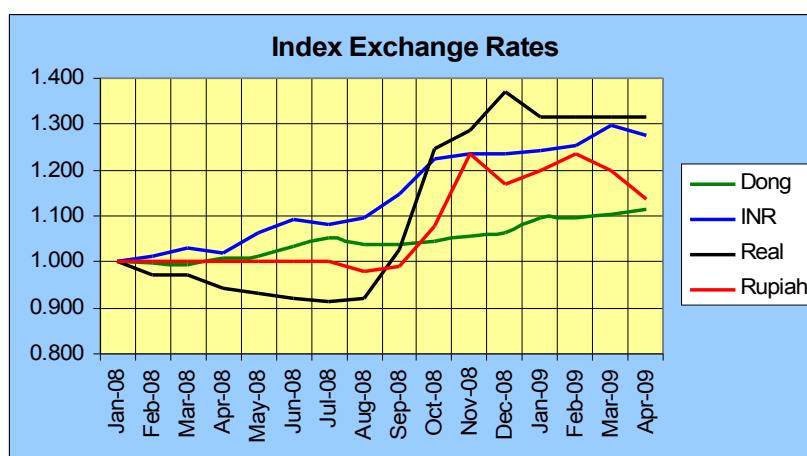


As a consequence the 2008 crop, which initially started off slow with first new crop quantities being exported not much sooner than March, was then marketed aggressively during April to July period. Prices in the international market started to come down.

**2) Banking crisis :** Sometime during the middle of 2008 it became apparent that the banking crisis starting to impact the world economy. For the pepper economy the effects were twofold:

1. As a result of reduced availability of working capital financing or maybe just for defensive reasons many companies started to lower inventory levels and to reduce pipeline stocks
2. Availability of US-dollars in the international market came down drastically as a result of which the currencies of the pepper exporting countries depreciated against the greenback.

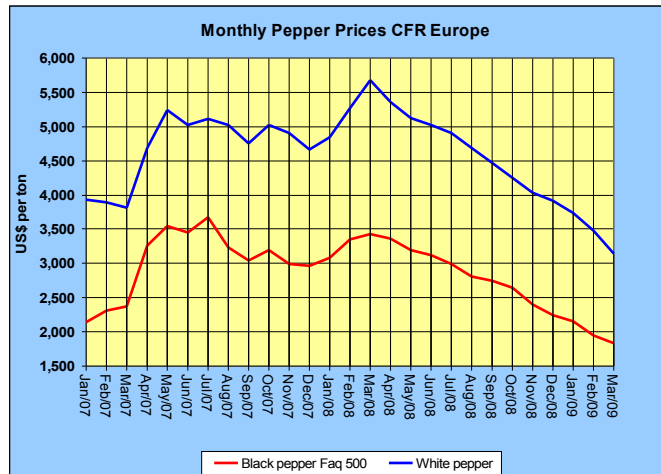
The next graph provides a snapshot of the movement in exchange rates of the currencies of Brazil, Vietnam, India and Indonesia during 2008. As can clearly be seen from August until December 2008 the currencies of the major pepper exporting countries depreciated, which gave exporters an incentive to reduce their Usd-prices.



### 3) Indonesia

If there is one country that successfully fooled the pepper world it was Indonesia. Continued reporting of only marginally higher crops in Lampung (black pepper 18,000-23,000 tons) and substantially reduced output of white pepper in Bangka (6,000 to 8,000 tons due to mine mining) made us believe that Indonesia's importance as an exporter had reduced. However, according to IPC statistics Indonesia exported some 54,000 tons during 2008, of which 38,000 black and 16,000 white pepper. More than double the year before. This is supported by the fact that imports from Indonesia into the United States during 2008 increased by 36% to 20,000 tons when compared to the previous year. To make matters worst one new player on the block, originally more active in coffee, had decided to take a gamble and go long substantial quantities of black pepper in previous years. Not being able to cope with the financial burden, or maybe also for other reasons, this company went under and banks asked other local exporters to sell out the troubled stock, which they did at fire sale prices of as low as Usd 2100 tons FOB.

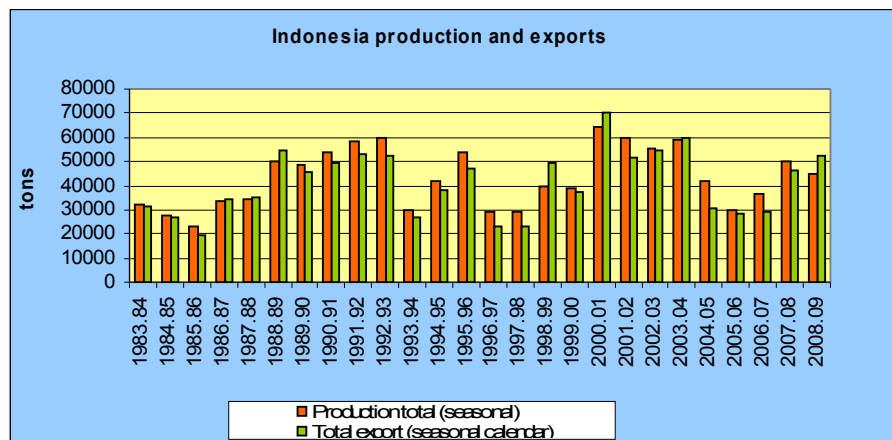
So to summarize for 2008, we had the largest producing country to liquidate stocks followed by a garage sale in Indonesia into a market with significantly reduced demand. This helped by depreciation in fx rates of exporting countries.



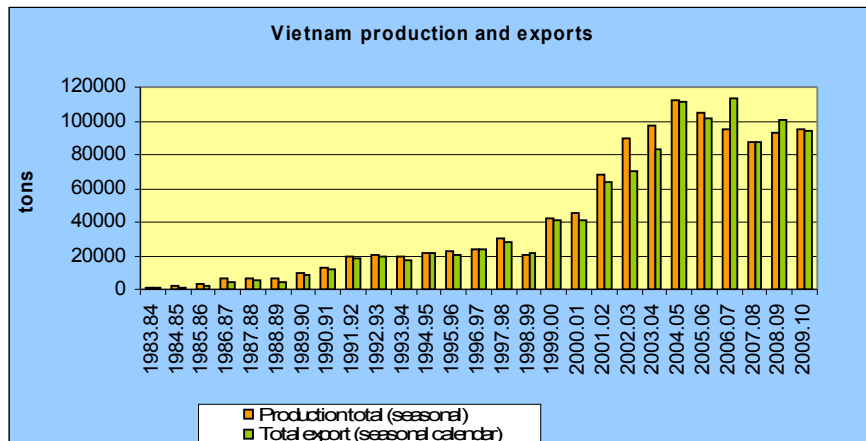
And here we are, by the end of 2008 prices of black ASTA pepper were at Usd 2200 cfr NY , only ....50% of the level at the beginning of the year.

### What to expect now for 2009?

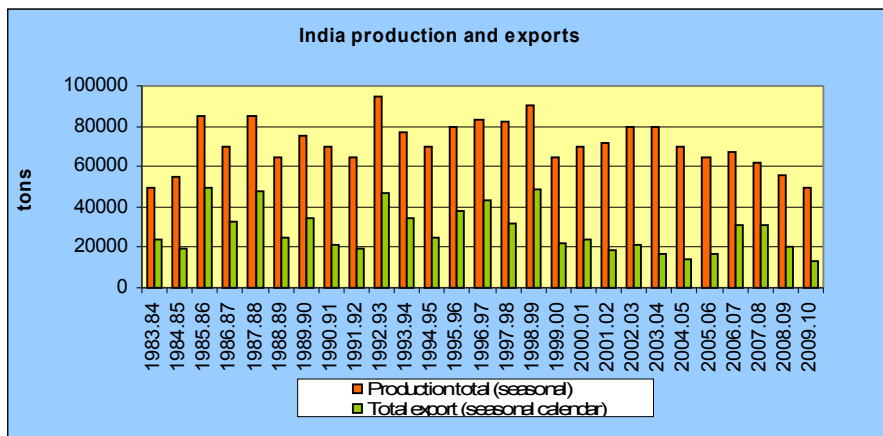
The next few slides will show the development of the crop sizes and exports in the most important pepper producing countries.



Historically Indonesia has shown big fluctuations in crop size as you can see from this graph. Therefore what was said earlier about the big crop for 2008 is certainly no anomaly. The 2007 crop can easily have been 50,000 tons and for the 2008 crop, so the current crop, we expect a number certainly not smaller than 45,000 tons. For 2009 we need to be on our wits. Crops tend to be bigger when prices are high because more pickings are done as this is more rewarding then. The current low prices may have a negative impact on this. No adverse weather circumstances have been reported so far that could negatively influence the 2009 crop.

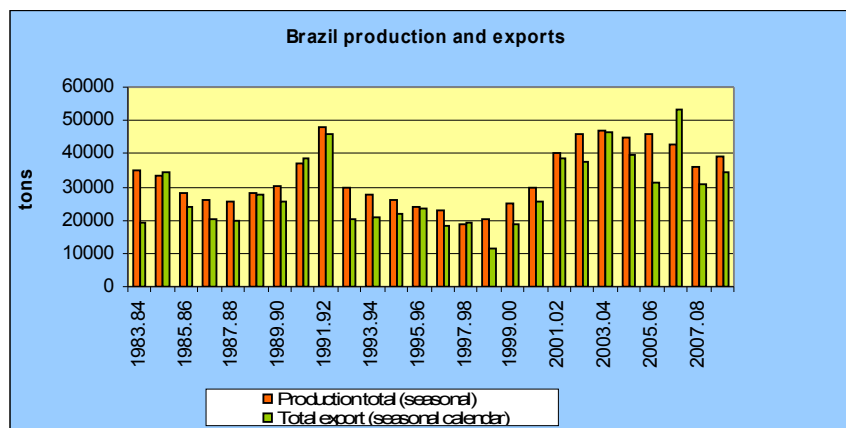


Vietnam’s output peaked during 2004 at between 110,000 to 120,000 tons. Low prices reduced acreage with consequently lower crops during the periods 2005, 2006 and 2007. Over the last two years we see a slight recovery. Because of the higher prices better care is taken of the vines. We estimate 2009 output at around 95,000 tons.



India’s crop has been on the decline for a couple of years now. Even the high prices have not been reason to seek more income from farming pepper. Main reason is that for many farmers, especially in the Wayanaad and Iddukki districts of Kerala, which between the two of them traditionally produced some 60,000 tons of pepper, pepper is not of much interest to grow anymore. Other crops, like cardamom, give a quicker and better return. The new plantings that took place did not survive because of the effects of climatic changes and risk of disease. As a result these two districts now have an output of only 30,000 tons.

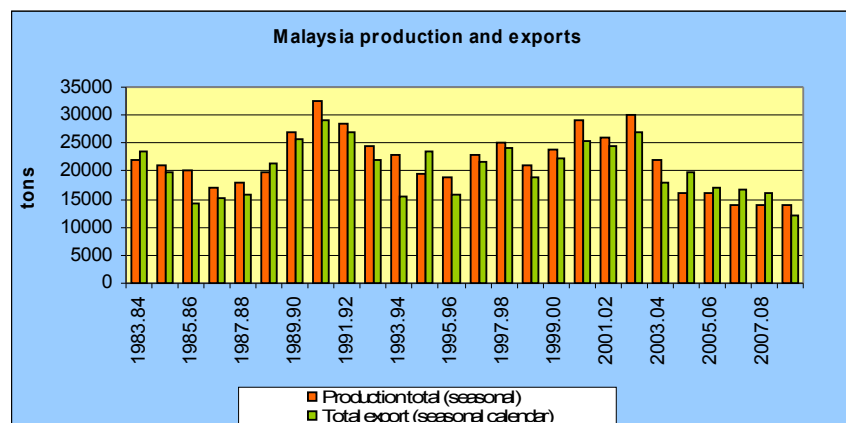
For 2009 we estimate the total Indian crop at 50,000 tons. There are rumors in the market that this may even be on the high side. Quantities as low as 40,000 are also mentioned, which we believe to be wishful thinking on the part of some market makers. Only 20-25% of India’s crop is being exported. Actually taking into account the imports from countries like Brazil, Sri Lanka, Vietnam and Indonesia (mainly for the extraction business) India is hardly a factor anymore from a macro point of view.



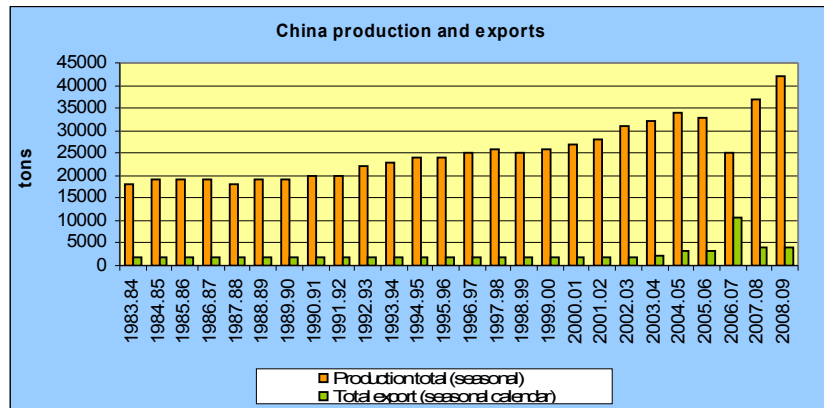
**Brazil's** 2008 crop increased, with exports following the same direction. Normally one would expect a bigger increase in production as a reaction to the higher prices. However, considering the appreciation of the Brazilian Real to the US dollar during the period April06-July08 revenues in local currency during the period 2006 and 2007 have not enjoyed that good an increase. So for the Brazilian farmer the incentive was not really there to invest more in pepper vines. The 2008 crop of Brazil is estimated at 38,000 tons.



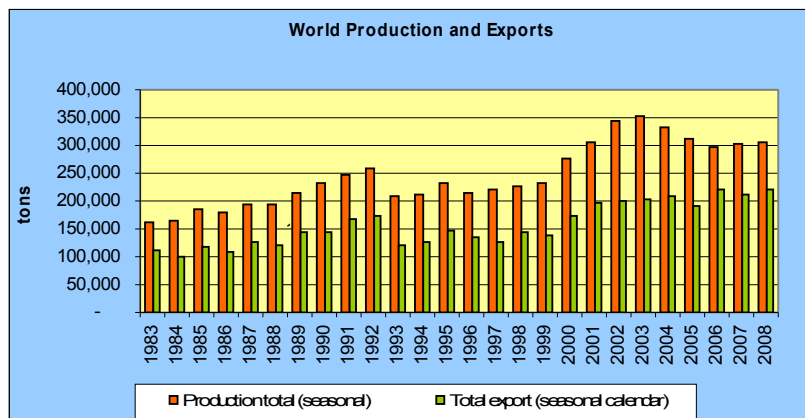
**Malaysia** has seen a steady decrease in output. The country has become a small player mainly servicing markets in Asia.



Then last but not least we have **China**....well, anybody's guess. Lat year's crop is estimated at between 40,000 and 45,000 tons, of which a very small part is exported. Regarding the 2009 crop rumors are that this may be 50% lower due to adverse wet weather circumstances. As China's crop produces mainly white pepper this may explain why the price of Chinese white pepper, being very competitive some six months ago, suddenly increased to levels of approx Usd 1000 more expensive than Vietnam and Usd 600 higher than Indonesia.



Adding in quantities of the other smaller producing countries like Thailand, Sri Lanka, Ecuador, Cambodia, etc, which in aggregate we estimate at 17,500 tons, we arrive at a total for 2009 of 300,000 tons. Out of this some 200,000 tons will be exported to non-producing countries.



All the foregoing can be summarized in a table as follows:

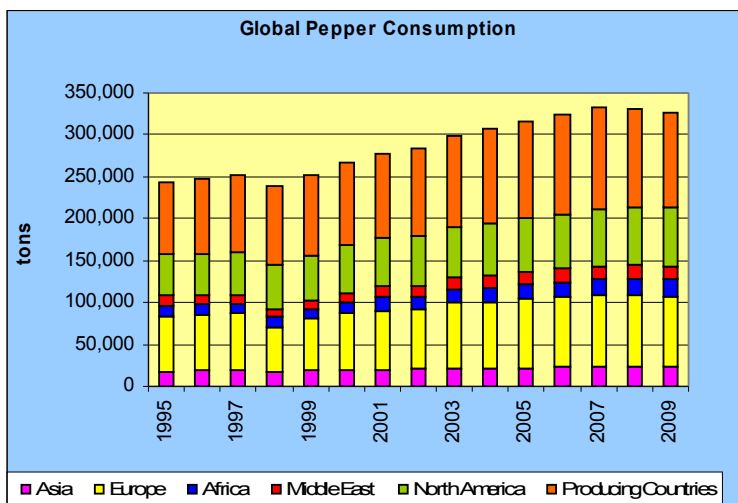
**Global Production**

Year month	Production								Total
	Indonesia	Vietnam	Brazil	India	Malaysia	China	Sri lanka	Other	
Total 2001	60,000	68,000	40,000	72,000	26,000	28,000	5,500	6,000	305,500
Total 2002	55,000	90,000	46,000	80,000	30,000	31,000	6,500	6,000	344,500
Total 2003	59,000	97,000	47,000	80,000	22,000	32,000	8,500	6,500	352,000
Total 2004	42,000	112,000	45,000	70,000	16,000	34,000	6,500	6,500	332,000
Total 2005	30,000	105,000	46,000	65,000	16,000	33,000	9,500	6,500	311,000
Total 2006	37,000	95,000	38,500	67,018	14,000	25,000	9,000	8,000	293,518
Total 2007	50,000	87,500	36,000	61,617	14,000	37,000	6,750	9,000	301,867
Total 2008	45,000	92,500	39,000	55,455	14,000	42,000	8,000	10,500	306,455
Total 2009	45,000	95,100	40,000	50,000	16,000	32,000	8,000	9,500	295,600

**Global Supply**

	Begin Stock	Production	Domestic Consumption	Exports to consuming country	End Stock Producing Countries
Year	Total	Total	Grand Total	Grand Total	Grand Total
Total 2001	126,937	305,500	101,127	197,317	133,994
Total 2002	133,994	344,500	104,126	197,966	176,401
Total 2003	176,401	352,000	107,220	201,737	219,444
Total 2004	219,444	332,000	110,411	209,260	231,774
Total 2005	231,774	311,000	113,702	190,688	238,384
Total 2006	238,384	293,518	117,099	226,666	188,137
Total 2007	188,137	301,867	120,601	209,099	160,305
Total 2008	160,305	306,455	119,487	221,268	126,005
Total 2009	126,005	295,600	115,797	197,772	108,036

So for 2009 the expected production of 295,600 tons will be somewhat smaller than the 2008 level of 306,455 tons. We expect domestic consumption in producing countries as well as exports to come down with a few percentage points. On a net basis this will mean that stocks in producing countries will have to come down by around 18,000 tons.

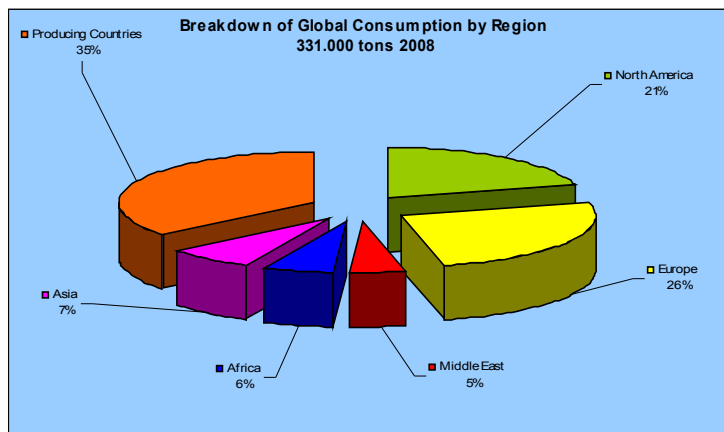


**Demand**

The following graph shows the trend in consumption. So this graph is not depicting the level of imports, but the usage by end consumers. The problem is that nobody really knows what the final consumption is. Based on a mix of data of production estimates, exports, imports, price development and whatever more we believe this to be reasonably correct.

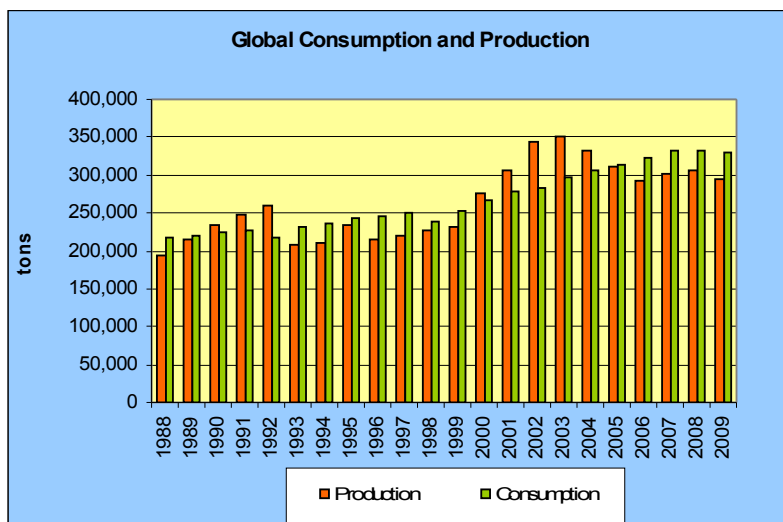
We estimate a fairly smooth path of growth in consumption over the years of between 1.5 to 2% We do know that spice consumption is relatively inelastic for changes in price and that to a large extent it is determined by the level and type of meat consumption. The latter has increased with improvement in global wealth especially in the non-developed countries like India and China.





As a result the share of Asia in the global consumption of spices has increased significantly over the last 10 years and now adds up to approximately 40%. This clearly also changes the dynamics of the pepper market where nowadays more weight should be given to what happens in the Middle and Far East regions.

For 2008 and 2009 we do not expect any growth but a slight decline. So total consumption is estimated at around 330,000 tons. This includes domestic consumption in pepper producing countries. Consumption on non-producing countries is estimated at around 210,000 tons.

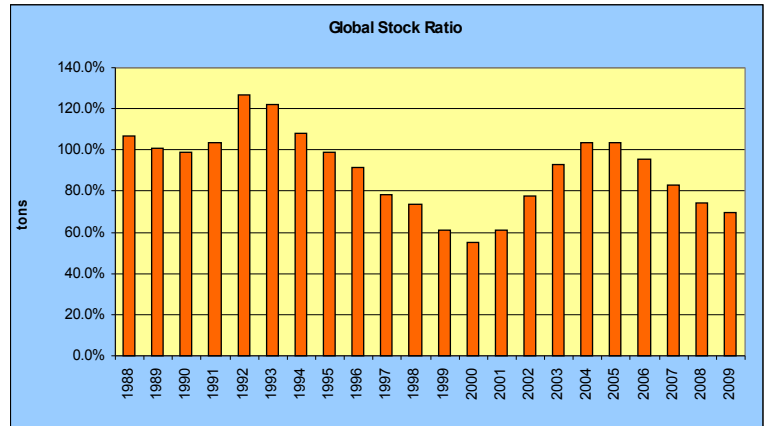
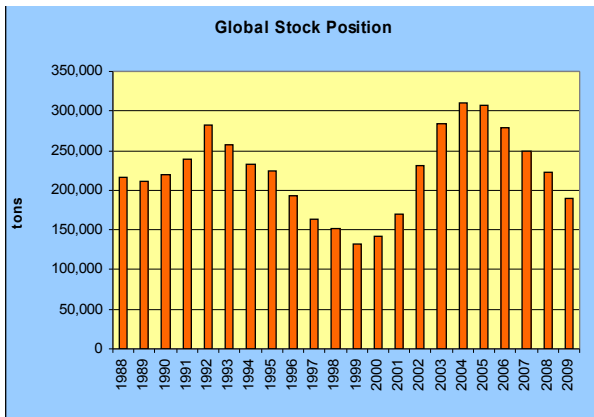


Bringing production and consumption together results in the following graph. This graph shows that according to our estimates supply is still short of demand by some 25,000 tons for 2009. However, as mentioned before, we should note here that demand is not necessarily equal to imports as production is not likely to be equal to exports. The difference is stocks in origin countries and pipeline stocks in consuming countries. With pipeline stocks I mean anything between FOB exports and final consumption.

The global stock position, which is the sum of the stocks in origin and the pipeline stocks, has gradually decreased over the last 4 to 5 years. We estimate global stock by the end of 2009 to be around 190,000 tons, a reduction of some 25,000 tons compared with end of 2008. Obviously we can play around with these numbers a bit and may challenge the level of stocks. The absolute level of the stocks is not that relevant. More important is the direction, increase or decrease, and the relative level compared to consumption. That's to say that 190,000 tons in 1995 is different from the same figure in 2009, simply because consumption level has increased.

The trend still is that global stocks are coming down, which to a large extent is caused by a substantial reduction of inventories in India over the last few years.

As far as the relative position versus consumption is concerned we need to focus at the stock ratio, which is the global stocks divided by global consumption. The development in the global stock ratio can be shown as follows:



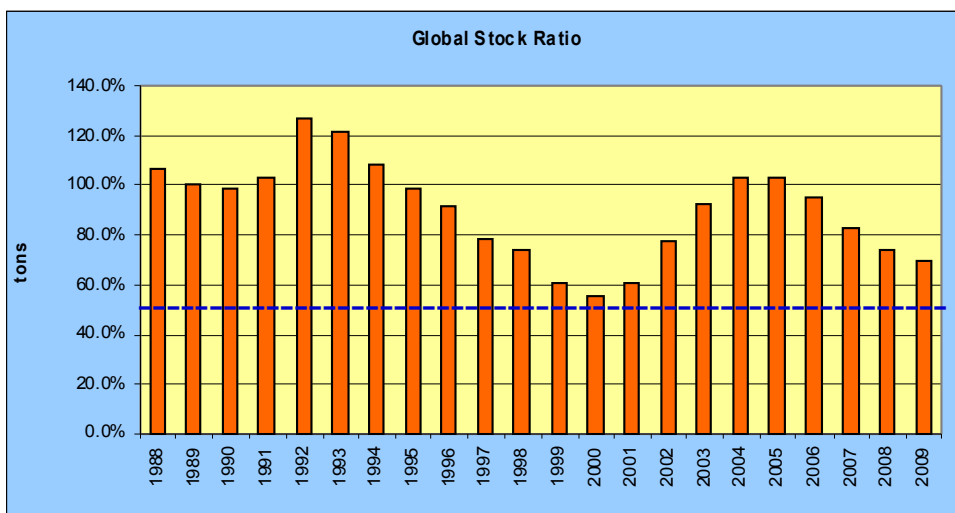
The global stock ratio is a measurement of the stress factor in the supply chain of pepper. This stress factor can be measured in weeks of supply. So for instance a ratio of 50% represents 26 weeks of supply in the pipeline.

Looking at the pepper supply chain we can use this to estimate the minimum number of weeks necessary to ensure that the wheels of the pepper market will keep on turning.

So for instance if we take:

	# of weeks
Origin stocks	8
Shipping	6
Clearing Customs	1
Processing	5
Logistics	3
Trade	2
<b>Total</b>	<b>25</b>

we arrive a total pipeline of 25 weeks of supply or  $25/52 = 48\%$ . So, if this is correct than 48% should be more or less the minimum level of the stock ratio, which in the graph would look like this ...

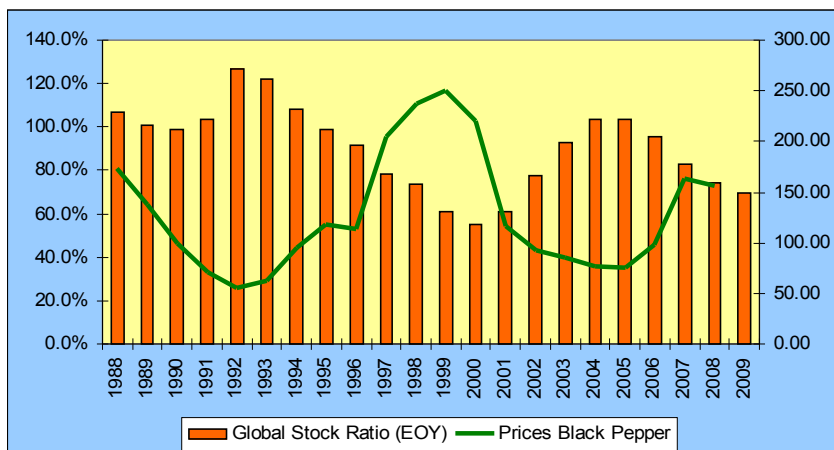


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We believe that the pepper supply chain feels comfortable with a stock ratio of around 80% or some 40 weeks of supply. Stress levels in the chain will go up if the stock ratio drops below the 80% mark, which will cause prices to increase.

The current global stock ratio is somewhere around 74% and expected to drop to 70% by the end of 2009. This compared to well over 100% some 5 years back.

If we overlay this stock ratio chart with the price chart we get the following picture:



This makes sense, as prices should be low when stocks are high. Current prices are just at the 110 \$-cents per pound mark, so well below the average of 2008 of 150 \$-cents per pound. This is a bit odd given the fact that the global stock ratio is lower. So purely based on 'pepper economics' this should not have happened. I tried to explain earlier as to why this did happen.

## White Pepper

So far we have not yet spoken about the situation for white pepper. For 2009 the world production is estimated at 66,000 tons of which more or less half is for account of China. This is assuming that China will have a substantially smaller crop that last year. If this is true this also would mean that China will need to import white pepper from other countries, for instance from Vietnam. This will in turn reduce the availability of black pepper in Vietnam because Vietnamese white pepper is made from black.

Supplying Countries							Production Total
Year	month	Indonesia	Vietnam	Brazil	Malaysia	China	
Total	2001	31,000	0	2,100	4,000	28,000	65,100
Total	2002	29,000	0	2,000	5,000	31,000	67,000
Total	2003	23,000	1,000	3,500	6,000	32,000	65,500
Total	2004	17,000	9,700	5,500	4,000	34,000	70,200
Total	2005	11,000	9,000	3,000	3,000	33,000	59,000
Total	2006	9,000	11,000	2,500	4,000	25,000	51,500
Total	2007	12,000	11,000	2,000	4,000	37,000	66,000
Total	2008	12,000	9,400	2,000	4,000	42,000	69,400
Total	2009	10,000	18,000	2,000	4,000	32,000	66,000

Supplying Countries		Begin Stock Total	Production Total	Domestic Consumption Grand Total	Exports to consuming country Grand Total	End Stock Grand Total
Year	month					
Total	2001	45,705	65,100	26,790	34,741	49,275
Total	2002	49,275	67,000	27,339	40,596	48,340
Total	2003	48,340	65,500	27,834	35,796	50,211
Total	2004	50,211	70,200	28,232	35,986	56,192
Total	2005	56,192	59,000	28,642	28,274	58,277
Total	2006	58,277	51,500	31,771	36,681	41,325
Total	2007	41,325	66,000	36,530	33,615	37,180
Total	2008	37,180	69,400	37,803	33,991	34,786
Total	2009	34,786	66,000	38,854	34,230	27,701

Consumption of white pepper outside producing countries is approximately 34,000 tons. With a total production of 66,000 tons and a domestic consumption of some 39,000 tons stocks will need to reduce by 7,000 tons in order to satisfy demand.

### Price expectation 2009

So were does this leave us in view of price expectations. Market views are very mixed at the moment. Sentiment in consuming countries is biased to lower prices. Couple of remarks here to take into consideration:

- 1) Prices of pepper have dropped from their peaks of \$1.90 per pound during March 2008 to around \$1,00, so by almost 50 per cent. This was to a large extent caused by factors that do not directly related to pepper fundamentals. We talked about the Vietnam economic situations and currency fluctuations. Therefore I believe this market was substantially oversold and waiting for a correction, which actually has been happening during the last few weeks.
- 2) We discussed that during 2008 stock liquidation in origin countries happened in a market with little demand. Obviously demand is always an important part of the equation. But I think the real question is whether consumption will follow it usual pattern in times of economic crises (price inelastic) or, given the severity of this crisis (at least that is what everybody makes us belief) we will see a drop in consumption. In case the latter happens prices are likely to consolidate at current levels. If consumption will revive and pipelines will be filled we probably will experience a further increase in price.
- 3) Indonesia : How big is the Indonesian crop? Somebody should go there and check it out.
- 4) India: If the situation in India is really as tight as many insiders say, then India will be a net importer of pepper. Since the beginning of this year prices in India have increased from their December lows some 30%. This does have an impact on price setting in Vietnam as most Vietnamese exporter/traders do follow the price development on the Indian futures market.
- 5) China. If China's crop indeed is lower, this can certainly swing the balance in favor of higher prices.

Thank you very much for your attention.

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