

## **Curry Paste**

There is no question if you have access to fresh spice and herbs and have the knowledge and time to roast grind and blend , then it would be far better to build a full curry from fresh ingredients every time !

For me I have to hunt down spice! And it comes when I find it! Not when I need it! And on top of this I do not have a cook who works the kitchen all day! And so curry pastes have given me an alternative to very acceptable curries over the years!

So there's the challenge, learn about the food science and processing methodology used to build a commercial curry paste ! Apart from buying good fresh spice there are things that you have to have and know to get it wright!

Just like a perfect cup of coffee that needs freshly roasted beans, expertly selected and roasted, then the beans ground to the exact grind minutes before they are expressed in a good machine where temperature and pressure is controlled and managed, get all this wright and we get that perfect espresso. And all of this over single spice or coffee berry! How much more complex is a curry paste?

It's not just about a receipt Rather it's all the other things as in making that coffee! The type of processing machine! The temperature, the pressure that come after the bean that you need to know and control to make good curry pastes

## **THE BUILD**

### **Spice**

There are dry spices like cloves, cardamom and cinnamon , see list below and fresh green spice and condiment like ginger and garlic, that contain considerable water ( ginger is almost 70 % water ) see list below , we separate the dry and wet spices into two groups!

Group 1 the dry spices, these are dry roasted and ground

Group 2 the fresh green spice, this group is first processed with oil and sautéed to remove the raw flavours

### **Oils**

As well as the spices there are the oils! More than one! Mustard seed oil is used for its flavour

VCO Coconut oil I used for its flavour and health properties and stability in sun and light exposure as well as stability against rancidity! High cooking temperature! It's made up of 50 % lauric acid (same as breast milk) and is a natural herbicide and fungicide all round good oil that has been used to make curries for a millennium

## Acids

*Normally in the home kitchen we would add Vinegar. lemon juice and tamarind paste etc to give the curry its acids but in a paste this would bring with it too much water so we use concentrated acids extracted from these natural source*

Acetic acid is added to replace vinegar as we don't need the water , vinegar typically contains only 8 % acid

Tartaric acid provides the Tart found in tamarind , tomatoes etc

Citric acid provides the acid usually given in the lemon juice, tomatoes and tamarind 1 cup of lemon juice is 2 tea spoons of pure citric acid

Lactic acid we produce in the fermentation process !

## Method

1/ Roast and grind all dry spices in the manor known to the art, firstly into a rough grind so thy are easy to further process .

2/ Peel and slice fresh spice

3/ process all fresh spice into a paste with the Mustard oil in a food processor as fine as possible .

4/ Add some of the remaining oil to a heavy bottom pan and Sauté the green paste and mustard oil under low heat with constant stirring until fragrant and loses its raw look and taste this will take 10 minutes. Remove from heat and place aside to cool.



5/ Next the dry spice ,firstly add 80 % of the rough ground dry spice with all the remaining oil and 600 grams of mineral water and further process into very fine paste in an appropriate milling operation ! Skip if appropriate equipment is not available, but grind the first 80 % of dry spice as fine as you can in the coffee grinder or spice mill.

6/ transfer this fine spice, oil and water paste into a heavy bottom pan under a med heat and stir constantly for 10 minutes as the spice infuses into the oil, this cooking also evaporates away most of the water that has been added ! The colour will darken! But it must not burn . some flavors are absorbed into the oil some into water so it is important to add the water and then slowly cook most of it away , but not all !



8 / continue to grind the remaining 20 % of the rough ground dry spice down to a medium fine grind in coffee grinder or spice mill , then add this to the spice paste and continue to cook . It is ideal to have 80 % of the spice blend ground down with the oil to a very fine smooth paste and 20 % left to have a slightly coarser grind! Of course this requires good wet and dry milling equipment. If this is not available simply dry grind in the coffee or spice mill 80 % as fine as possible and 20 % slightly courser

9/ when all the dry spice, water and oil has been Sautéed down usually 10 minutes over medium heat set it aside to cool to room temperature



10/ when both pastes the dry spice and the green paste are cool, blend them both in a large mixing bowl

11/ add the acids and sugar and when under 40 deg c add the 80 mls of Yakult

12/ as an option I add fresh curry leaves into the cooled paste before bottling. This is not traditional but adds a surprising level

13/ sterilize the prepared empty Pataks curry past jars, and fill them with the new curry paste. To sterilize I add an inch of water in the cleaned jars and place on high in the microwave and let it boil for a Minuit or two to sterilize the jars .

14/ full the hot dry jars with the paste to the top, there should be enough oil to cover the paste. Finally sterilize lids in boiling water and close jars

15/ place jars in warm place under the sun for two weeks to activate probiotic fermentation, forming Lactic acid in the paste and developing the final level of flavour

16/ store in cool place until used. Keeps months even out of the Ref as fermentation is a natural preservative

### **The Machine**

The new not yet used colloid mill for milling wet pastes! New toy for the Lab !



Vindaloo Mk 4			
<b>Dry Spice</b>	added wt	22.5	0.035274
	<b>gms</b>	<b>%</b>	<b>oz</b>
Cumin seeds	60	2.7	2.116
Coriander seeds	44	2.0	1.552
Fenugreek seeds	24	1.1	0.847
Fennel	12	0.5	0.423
Cinnamon stick ( not casia )	10	0.4	0.353
Black Pepper	17	0.8	0.600
Green cardamom	22	1.0	0.776
large black Cardemom	4	0.2	0.141
Cloves	18	0.8	0.635
Black mustard ( tripple if not using mustard oil )	15	0.7	0.529
Tumeric powder	10	0.4	0.353
Red chilli powder	45	2.0	1.587
Red paprika	10	0.4	0.353
Ginger powder	10	0.4	0.353

<b>Fresh condiments</b>	<b>gms</b>		<b>oz</b>
Garlic aprox 30 cloves	120	5.3	4.23
Ginger	120	5.3	4.23
Fresh red chillies	60	2.7	2.12
Rock sea salt	40	1.8	1.41
Tamerand paste	250	11.1	8.82
Water	600	26.5	21.16
Brown sugar	100	4.4	3.53
2 sprigs of curry leaves added to paste just Pryor to bottling	10	0.4	0.35
<b>Acids</b>			
	<b>gms</b>		<b>oz</b>
Citric acid	12	0.5	0.42
Tartaric acid	8	0.4	0.28
Yakult as seed lactobacillus Casi added under 40 deg c	80	3.5	2.82
<b>Oils</b>			
	<b>gms</b>		<b>oz</b>
Mustard Oil	100	4.4	3.5
VCO coconut oil	450	19.9	15.9
wt befor cooking	2261	100	
finished wt	2000		
water lost	261	11.5	