

MANUFACTURING ASSIGNMENT PART 1

Root of a Medicinal Plant – *Symphytum officinale* (Comfrey)

Collection:

- Harvested from the lecturer on 2 July 2002.

Drying:

- Start Date: 3 July 2002
- First I washed the *Symphytum officinale* root thoroughly.
- Then using paper towels, I dried it as much as I could, and proceeded to weigh it.
- Next, I sliced it to 1mm thick pieces.
- Using more paper towels, I carefully wiped each slice of root to remove as much moisture as I could. It turned out to be quite tricky cause the root was so slimey!
- Then I laid each piece out on an oven tray lined with more paper towels (to absorb any more moisture), making sure to space them out so that they could “breathe” – better ventilation.
- I placed the tray on a top shelf in my built-in wardrobe, making sure that the door was closed as often as possible so as not to expose the drying roots to light. The blinds in the room were always drawn in any case.
- Using a column heater, I maintained the temperature in the room at 28°C throughout the drying process.
- End Date: 5 July 2002

Storage:

- When the root was crackly dry, I stored the pieces in a tinted brown jar and labelled it.
- Holding the jar in both my hands, I reiki-ed it for 20 minutes.
- Then, I placed the jar in a drawer so that sunlight can't get to it.

Weight before Drying: 33g

Weight after Drying: 10g

Water Content: 70%

Aerial Section of a Medicinal Plant – *Rosmarinus officinalis* (Rosemary)

Collection:

- Harvested from an organic food store on 20 June 2002.

Drying:

- Start Date: 20 June 2002
- As the *Rosmarinus officinalis* was relatively clean, I first weighed it.
- Next, I washed it very carefully so that the leaves do not break apart from the stems.
- Then using paper towels, I individually pat each stalk as dry as I could. It proved to be a really transformative process. Somehow placing so much attention on each stalk, on each leaf even, really connected me with the plant. It's like I suddenly saw it with new eyes, truly seeing its value and preciousness and also the gift that *Rosmarinus officinalis*, and plants in general, are to us.
- Then I laid each stalk (leaves intact) out on an oven tray lined with more towels (to absorb any more moisture), making sure to space them out so that the air could circulate better between them.
- I placed the tray on a top shelf in my built-in wardrobe, making sure that the door was closed as often as possible so as not to expose the drying parts to light. The blinds in the room were always drawn.
- Using a column heater, I maintained the temperature in the room at 28°C throughout the drying process.
- End Date: 24 June 2002

Storage:

- When the leaves were crackly dry, I removed them from the stems and placed them in a tinted brown jar, which I then labelled.
- Holding the jar in both my hands, I reiki-ed it for 20 minutes.
- Then, I placed the jar in a drawer so that sunlight can't get to it.

Weight before Drying: 25g

Weight after Drying: 8g

Water Content: 68%

MANUFACTURING ASSIGNMENT PART 2

Dried Plant Tincture – *Calendula officinalis* (Marigold)

Part of Plant Used: (dried) flower heads

Manufacturing Process:

25 June 2002 - I first prepared a menstrum of 100ml with an alcohol strength of 45%.

- I added the menstrum to 25g of dried *Calendula officinalis* in a blender and tried to blend it.
- However, it did not blend very well.
- Hence I added another 100ml of menstrum, retaining an alcohol strength of 45%.
- However, it still did not blend very well.
- I added another 25ml of menstrum, still retaining the alcohol strength of 45%.
- I then stored the mixture in a glass jar in the dark, stirring it everyday

19 August 2002 - I pressed the mixture through a muslin cloth and retrieved 165ml of the tincture.

25g dried *Calendula* : 100ml + 100ml + 25ml menstrum of 45% alcohol

25g dried *Calendula* : 225ml menstrum (101.25ml alcohol, 123.75ml water)

1 : 9

$$\% \text{ of alcohol} = \frac{101.25}{225} \times 100\% = 45\%$$

Date of finished product: 19 August 2002

The final product is a 1:9 dried plant tincture with an alcohol strength of 45%.

Fresh Plant Tincture - *Rosmarinus officinalis* (Rosemary)

Part of Plant Used: (fresh) leaves

Manufacturing Process:

Using the weigh-dry-weigh method, I had previously established that the moisture content of fresh *Rosmarinus* leaves is 68%.

Thus 35g fresh *Rosmarinus* leaves: $\frac{68}{100} \times 35 = 23.8\text{ml } \textit{Rosmarinus}$ plant water
 $\frac{32}{100} \times 35 = 11.2\text{g } \textit{Rosmarinus}$ solids

30 June 2002 - I first prepared a menstrum of 70ml with an alcohol strength of 30%.

- In a blender, I added the menstrum to 35g of fresh *Rosmarinus* leaves, and blended it.
- I then stored the mixture in a glass jar in the dark, stirring it everyday.

6 July 2002 - I realised that with the plant water from the *Rosmarinus*, the alcohol strength is actually less than 30%, hence I blended in another 10ml of alcohol to the mixture.

- Once again, I stored the mixture in the glass jar in the dark, stirring it everyday.

19 August 2002 - I pressed the mixture through a muslin cloth and retrieved 55ml of the tincture.

35g fresh *Rosmarinus* : 70ml menstrum (21ml alcohol, 49 ml water) + 10ml alcohol
11.2g *Rosmarinus* solids : 80ml menstrum + 23.8ml *Rosmarinus* plant water
11.2g : 103.8ml menstrum
1 : 9.3

% of alcohol = $\frac{(21+10)}{103.8} \times 100\% = 30\%$

Date of finished product: 19 August 2002

The final product is a 1:9.3 fresh plant tincture with an alcohol strength of 30%.

Fluid Extract – *Eugenia caryophyllata* syn. *Syzygium aromaticum* (Clove)

Part of Plant Used: (dried) flower buds

Manufacturing Process:

6 July 2002 - I first prepared a menstrum of 50ml with an alcohol strength of 45%.

- In a blender, I added the menstrum to 12.5g of crushed dried *Syzygium aromaticum* and blended the mixture.
- I stored the mixture in a glass jar in the dark for three weeks, stirring it everyday.

27 July 2002 - I pressed the mixture through a muslin cloth and retrieved 35ml of the tincture.

- Using this as the menstrum, I blended in another 12.5g of crushed dried *Syzygium aromaticum*.
- Once again, I stored the mixture in a glass jar in the dark for three weeks, stirring it everyday.

19 August 2002 - I pressed the mixture through a muslin cloth and retrieved 20ml of the fluid.

First maceration

12.5g dried *Syzygium* : 50ml menstrum (22.5ml alcohol, 27.5ml water)
1 : 4

$$\% \text{ of alcohol} = \frac{22.5}{50} \times 100\% = 45\%$$

Second maceration

Retrieved tincture = 35ml (15ml lost with the marc)

$$\text{Amount of alcohol in retrieved tincture} = \frac{22.5}{50} \times 35 = 15.75\text{ml}$$

12.5g + 12.5g dried *Syzygium* : 35ml menstrum (15.75ml alcohol, 19.25ml water)
25g dried *Syzygium* : 35ml menstrum
1 : 1.4

$$\% \text{ of alcohol} = \frac{15.75}{35} \times 100\% = 45\%$$

The alcohol content remains at 45% since no fluid was added during the second maceration.

Date of finished product: 19 August 2002

The final product is a 1:1.4 fluid extract with an alcohol strength of 45%.

Some Afterthoughts on the Manufacturing Assignment:

Making the tinctures, fluid extract and syrup has been an absolutely fantastic way of familiarising myself with the herbs, and getting to know them intimately. More and more I have come to appreciate the uniqueness of each herb and the wonderful gifts that they present to us.

I had first started out thinking that it would be very difficult to make my own medicines, and while the process had been rather tedious at times, it is far from being difficult. In fact, it has turned out to be quite easy – provided we have the ingredients. But much more than being easy, it has been a fun and rewarding process. At one stage, while making the syrup, I felt very much akin to the Chinese medicine man brewing up his decoctions. I love the primitiveness of making the medicines from the crude herbs and I love using my hands in the process of doing so; it is very grounding and therapeutic.

I feel empowered knowing that I now have the skill to make natural medicines free from toxic chemicals. I feel so much pride in my final products. I can't help but think just the amount of care, attention, and love that was put into making the medicines would in themselves contain healing properties that would be imparted to the person using the medicine.

I have also learnt, as you have mentioned several times, that there is no one way of doing something. I have learnt that the process of manufacturing our own medicines is all about trial and error (at my stage anyway), and not being afraid to make mistakes. Perhaps what we initially see as a mistake may in fact turn out to be a lucky slip and we end up with a product that is even better than what we had initially planned.

All in all, this has been a wonderful course on herbs and self-discovery. Thank you very much for sharing your traditional methods of making the medicines and for your recipes.