

SAVOLAB

ORGANISATION OF A SYSTEMATIC EXPERIMENTAL PRODUCTION

**OF NATURAL SOAPS
BASED ON JATROPHA OIL AND OTHER AGRICULTURAL PRODUCE**
produced within the context of
TOMOKA's
sustainable rural development project in the Canton Dawlotu Tutu

VISUAL IMPRESSIONS

18-07-2010 / doc 30.20.577

GuKam S.I. en formation

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1 ORGANISATION OF SYSTEMATIC PRODUCTION

The development of each new soaps takes place in the form of TRIALS. This document only lists *some* visualisations of the systematic way of working in the Experimental Production Laboratory.

1.1 **Each Trial (each development of a new soap) contains several steps:**

- 1 Recipe design -- Each recipe gets a number
- 2 Production of Version 1 of this soap
- 3 Test 1 of Version 1 of this soap
- 4 Adjustment 1 of this soap – this results in Version 2
- 5 Test of Version 2
- 6 If approved: Version 2 soaps are stored until they enter the Exit Test (after 6 to 2 months)
If not approved: new rounds of tests and adjustments, or complete abandonment of this recipe.
- 7 Exit Test after 6 to 12 months:
if approved, GuKam knows the life span of this soap and can start producing and selling it commercially.

1.2 **Each Step of a Trial is recorded systematically**

Standard Forms will keep track of Recipes, Time & Cost Investments in each Trial, and Test Results.

Forms will be tried out and adjusted until we can work with them in an easy way.

The results will enable GuKam to analyse which products are most profitable or most attractive for GuKam.

The outcomes of market research will be helpful here.

The availability or production cost of Ingredients will be of great importance for the decision which Recipe will be tried out and produced. That is why we will also record Ingredient Procurements in a systematic way!

1.3 **Each Step of a Trial Production is physically organized in a systematic way**

The attached DEMO PHOTOS will illustrate this. They have been presented in several categories which are presented further down. Here we present the *physical* arrangements:

- 1 INGREDIENTS NATURELS - the raw materials which will be turned into production ingredients
Demo Photo 1 gives a clear impression

- 2 **INGREDIENTS** ready for production -- labelled and stored in a systematic way:
Demo Photo 17 gives a clear impression
 - 2.1 Major Oil: Jatropha oil
 - 2.2 Minor additional oils – watch their numbering
 - 2.3 Natural Fragrances -- watch their numbering
 - 2.4 Natural Colours – watch their numbering
 - 2.5 Granular additives (for special texture effects and more fragrance)
 - 2.6 Solidifying & Soupleness additives like honey and flour

- 3 **EXPERIMENTAL RECIPES** – a strictly confidential collection!!!
The Recipe Book is shown on Demo Photo 3
Each Recipe contains at least 5 Sections:
 - A) Ingredients & their quantities
 - B) Required Tools / implements
 - C) Production Protocol (step by step and durations)
 - D) Packaging instructions
 - E) Storage instructions

- 4 **PRODUCTION TOOLS**
All laboratory tools find a place in a systematic way // on their proper shelf.
Demo Photos 4 and 18 provide a clear idea of the minimal equipment.
Packaging material or sealing material (foil) has not been shown

- 5 **TEST ANNOUNCEMENT BOARD**
See for example Demo Photo 2
This simple Board ensures that the correct recipe, version, and production date are recorded on forms.
Moreover, it is easier for the identification of eventual pictures.

- 6 **PREPARATION OF A TRIAL PRODUCTION PROCESS**
 - 6.1 Ingredients prescribed are standing ready // as on Demo Photo 2
 - 6.2 Tools (and moulds) which are required are standing ready on the work table // as on Demo Photo 4
 - 6.3 The recipe which will be produced lies at the right
 - 6.4 Safety & Hygiene precautions are taken: gloves lie ready , white coat, hair cap, See photo 5
The dangerous caustic soda bottle reads has been marked as such.

- 7 The GUKAM HOUSE COLOURS (white and blue) are respected .
See uniform and some labels

- 8 **RECORDING FORMS AND NOTEBOOK** are lying ready.
Recorded are: Time investments, remarkable incidents, and a final Test of some quality aspects like fragrance and colour. Saponification aspects cannot yet be judged because the new soap has to rest first a couple of weeks.

2 **ORGANISATIONAL ASPECTS ILLUSTRATED BY DEMO PHOTO**

We are drawing the attention to the following aspects:

2.1 **RAW MATERIALS : NATURAL INGREDIENTS**

Photo 1 shows an impression of flowers, fruits, legumes, spices, plants, herbs and other additives (like flour and honey) which *may* be used.

The Jatropha Oil is, of course, the result of pressing our harvested seeds. The avocados, pineapple, plants and flowers can also be home grown on our Plantation and by the farmers of Tomoka's future Farmers Association. The cinnamon and (wild) peppers (in basket right: on the floor) should be purchased, we think.

Several ingredients have at least two effects on the soap: they provide colour and fragrance. The lemons, oranges and geraniums may be an example of this. We do not yet know whether it is economically viable to extract the volatile oils and dye stuffs ourselves.

Several granular additives like herbs deliver fragrance and a sensuous effect. Sometimes they also provide a bit of colour. These aspects are important to keep in mind for the Export Oriented Soaps. Our Market Orientations in Europe (via Dutch friends) show that natural soaps (tablets, bars, and shubs) with granular components are highly appreciated.

The addition of perfumes to the soaps (with the help of essential oils (=etheric oils)) is very important for the Export Oriented Product Line 3. This is true to a lesser degree for the Product Lines 1 (rural) and 2 (urban soaps).

The choice of the etheric oils will be inspired by their own qualities and effects on the user. The etheric oil of lavender, for example, has the reputation to be calming and relaxing while it combats stress and helps one fall asleep. We will try to locate oils which accent the <Natural African> image we are looking for. Perhaps we will enhance this African identity by producing also soaps in <African forms> for the Export Market.

The African Statuette (Mask) is made by the Togolese artist Patrick Adjallé Dadzie. It is placed in this arrangement of natural ingredients to underscore the idea that Soaps are not only functional in the sense that they help us to clean our body or clothes. They are also the medium through which we experience all kinds of feelings.

Photo 17 shows the ready-to use natural ingredients (left) and tools (right cupboard).

The top shelf of the left cupboard presents additional oils, fragrances and colours.

The bottom shelf carries a selection of granular additives like lavender, pepper, cinnamon, mint leaves..

All items carry our own GUKAM NUMBER on different labels. Even ready-made scents like the bottle with <Fleurs d'Oranger> get a GuKam number, because they are listed in our Recipes and Stock Lists. By using different labels (white, yellow, silver etc) we keep the categories apart. And sometimes it seems advisable *not* to mention the name of the ingredient.....in order to keep our product secrets to ourselves.

2.2 PREPARATIONS FOR TRIAL PRODUCTION OF RECIPE 14

Photo 17 shows the neat arrangements of ready-for-use ingredients in the LEFT cupboard, and the simple tools in the RIGHT cupboard of our future Savolab's Store.

Photo 3 shows ALL ingredients which are listed in Recipe 14. They have been taken out of the store and were placed on the left part of the work table. The small plastic container with caustic soda wears a handwritten warning <danger>. Note that there is a small bottle of <additional vegetal oil> : in this case sunflower oil. The granular additives in Recipe 14 are: cinnamon, red peppers, and mint leaves. Colours stand in front of the Recipe Book. GuKam's soap maker will take the plastified sheet 14 out when he/she will commence the trial production. He/she then checks the presence of all ingredients before actually starting.

The Sign Board announces that this is the 2nd test = the 2nd time that we are making this recipe. However, not literally: we have adjusted Recipe 14 – for example, we have decided to add more mint or more colour, because the outcome of the First Production was not good enough.

Photo 4 shows the tools which will be needed for *this* experimental production. The exact weigh of the granular additives will be measured with the small white weighing scales on the right.

All tools are placed in an efficient order – on the right side of the work table.

Here again: the Soap Maker *first checks* whether all tools (mentioned in the Recipe Protocol) are present, before starting the actual fabrication work.

Photo 18 shows some of the moulds which will receive the improved soap number 14. At this moment, we only have available <solid forms> and bars. Mould for other forms/shapes will be designed at a later point with the help of the artists community in Kpalimé. We think of an AFRICAN SHAPES series

2.3 SOME PRODUCTION MOMENTS OF TRIAL SOAP 14

Photo 5 shows Soap Maker Osei Manu dressed in the GuKam colours <Blue and White>. Our professional image is highlighted by the fact that he wears a tag on his lab coat and a blue hair cap. Osei shows a fine nose for details: even his pens appear to be blue!

Protective (plastic) gloves are obligatory. The (blue) cleaning cloth has to be present as well..

Photo 6 captures a moment of precision: the amount of dye stuff which is needed for this production is carefully measured with the help of a small syringe.

Photo 7 shows how the Soap Maker added the dye stuff to the soap.

Photo 8 shows the preparation (grinding) of granular additives. We do not know yet whether we will advance this moment in our Protocol or that we leave this step in the sequence as it is: after adding the colours.

Photo 9 was taken when the Soap Maker poured the ground contents of his mortar into the improved soap nr 14.

Photo 10 illustrates how simple moulds are being filled with the new improved soap. The shape shown here (narrow bars) are meant for export. Luxury Soap Shops in Europe and New York favour this shape very much. They cut such bars into smaller pieces upon order of their client (and sells them by their weight).

2.4 OTHER EXPERIMENTAL PRODUCTION MOMENTS

Photo 11 captures the Soap Maker while he is pouring an additional vegetal oil to a green soap. The effects of adding (scented) oils at this late stage in the production process are under scrutiny.

Photo 12 is of interest because of the fact that a simple hand mixer is used. Electricity available is not always present in our experimental circumstances; that is why a small laboratory like ours should have *hand operated* alternatives available.

2.5 SOME EXPERIMENTAL SOAPS

Photo 14 just shows some of the forms (moulds) filled with different soaps.

They have to rest before being taking out of their moulds.

The oval soaps are multilayered: milky white and shades of pink. Such effects are attractive for our Export Line and probably also for our more luxurious soaps in the Urban Product Line.

Photo 15 records the results of the Second Trial (= first improvement) of Soap Recipe 21-B.

The recipe numbering has to be worked out into further detail.

At this particular moment we will use the following details:

- a) the NUMBER (21) indicates the Base Recipe : for example <Rose Scented Soap>
- b) the LETTER (B) refers to the Variation of this Base Recipe. For example <Red Rose Scented Soap>
In other words: our fictitious variation refers to the colour of the soap.
- c) the TEST NUMBER (2) shows how many times this particular recipe 21 has been tried out. In this fictitious example, we have developed the 1st improvement because it is the 2nd time that we work with it.

Photo 16 tells a similar story as photo 15

PHOTOS IN NUMERICAL ORDER

Explanations: see above

RAW MATERIALS : NATURAL INGREDIENTS

PHOTO 1

Photo 1 shows an impression of flowers, fruits, legumes, spices, plants, herbs and other additives (like flour and honey) which *may* be used.

The Jatropha Oil is, of course, the result of pressing our harvested seeds. The avocados, pineapple, plants and flowers can also be home grown on our Plantation and by the farmers of Tomoka's future Farmers Association. The cinnamon and (wild) peppers (in basket right: on the floor) should be purchased, we think.

PHOTO 2

Not relevant for this series -- It shows details of the first picture

PHOTO 3



ALL ingredients which are listed in Recipe 14.

PHOTO 4

Photo 4 shows the tools which will be needed for *this* experimental production. The exact weigh of the granular additives will be measured with the small white weighing scales on the right. All tools are placed in an efficient order – on the right side of the work table. Here again: the Soap Maker *first checks* whether all tools (mentioned in the Recipe Protocol) are present, before starting the actual fabrication work.

PHOTO 5



Photo 5 shows Soap Maker Osei Manu dressed in the GuKam colours <Blue and White>. Our professional image is highlighted by the fact that he wears a tag on his lab coat and a blue hair cap. Osei shows a fine nose for details: even his pens appear to be blue!

Protective (plastic) gloves are obligatory. The (blue) cleaning cloth has to be present as well..

PHOTO 6



Photo 6 captures a moment of precision: the amount of dye stuff which is needed for this production is carefully measured with the help of a small syringe.

PHOTO 7



Photo 7 shows how the Soap Maker added the dye stuff to the soap.

PHOTO 8



Photo 8 shows the preparation (grinding) of granular additives. We do not know yet whether we will advance this moment in our Protocol (=action at a later point in time) or that we leave this step in the sequence as it is: immediately after adding the colours.

PHOTO 9



Photo 9 was taken when the Soap Maker poured the ground contents of his mortar into the improved soap nr 14.

PHOTO 10



Photo 10 illustrates how simple moulds are being filled with the new improved soap. The shape shown here (narrow bars) are meant for export. Luxury Soap Shops in Europe and New York favour this shape very much. They cut such bars into smaller pieces upon order of their client (and sells them by their weight). Other favoured shapes: large round and rectangular cakes of several kilos each.

PHOTO 11



Photo 11 captures the Soap Maker while he is pouring an additional vegetal oil to a green soap. The effects of adding (scented) oils at this late stage in the production process are under scrutiny.

PHOTO 12



Photo 12 is of interest because of the fact that a simple hand mixer is used. Electricity available is not always present in our experimental circumstances; that is why a small laboratory like ours should have *hand operated* alternatives available.

PHOTO 14



Photo 14 just shows some of the forms (moulds) filled with different soaps. The SOAPS have to rest before being taking out of their moulds. The oval soaps are multilayered: milky white and shades of pink. Such effects are attractive for our Export Line and probably also for our more luxurious soaps in the Urban Product Line.

PHOTO 15

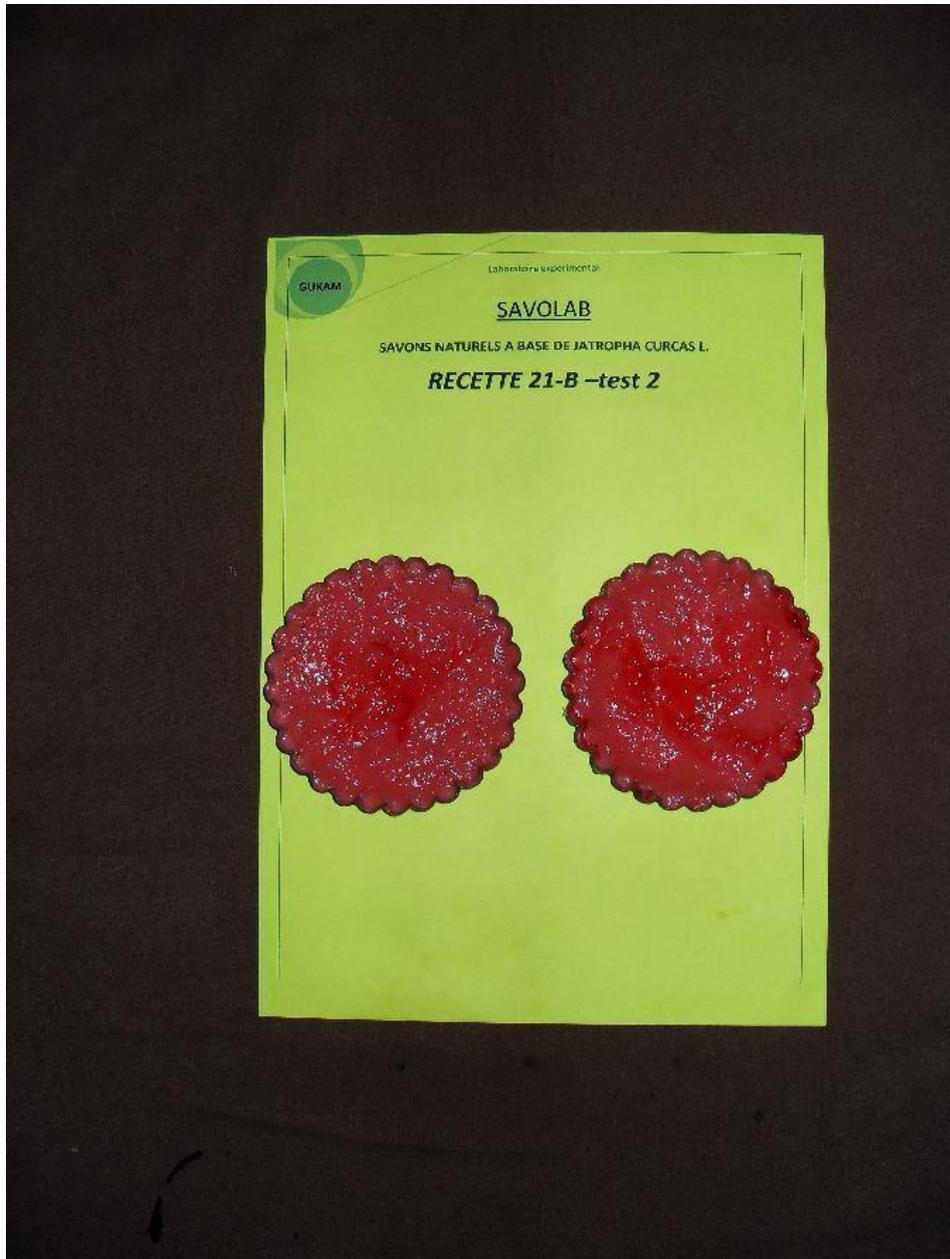


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PHOTO 16

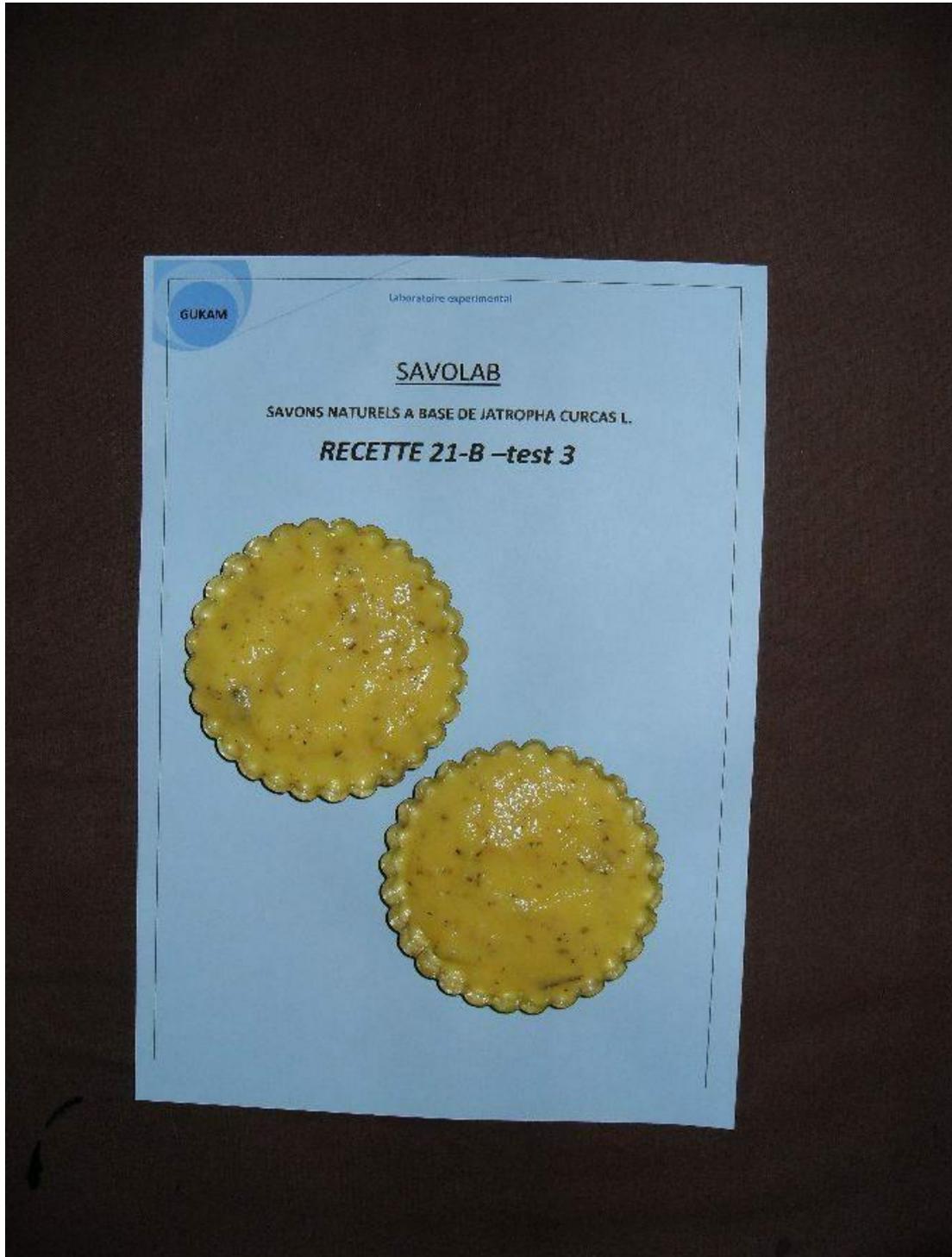


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PHOTO 17



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PHOTO 18



Photo 18 shows some of the moulds which will receive the improved soap number 14. At this moment, we only have available <solid forms> and bars. Mould for other forms/shapes will be designed at a later point with the help of the artists community in Kpalimé. We think of an AFRICAN SHAPES series and develop our ideas about European (seasonal) shapes at a later point in dialogue with Western importers.