GROW YOUR OWN STRAWBERRY JAM SANDWICH



MANUAL

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Introduction

Thousands of years ago we humans were hunters and gatherers. The food we ate, was whatever nature provided us with within the range of how far we could walk. The possibilities of storing and transporting foods were limited and thus our diet was determined by season and location. However, around then thousand years ago, people started to structure the nature around them for the benefit of their diet. Agriculture was born. These first farmers set the standard for our modern food production and consumption. Their farms however looked very different then those around us today. Since transportation was still limited, a variety of crops had to be grown in order to fulfill the needs of all necessary nutrition. Work was done by hand, and thus required a lot of labor. Farming was done on a small scale, providing only enough for a family or small population. The yield was just enough to live from. Whereas inventions and innovations made agriculture more efficient and effective in the years, farmers eventually produced more than they could eat. This meant no longer everybody had to be directly involved in the facilitation of food. People began to specialize in different professions. Exchanging goods and services. Some people specialized in growing crops, others specialized in processing these crops in to edible foods. The profession of farmer and baker was separated step by step. Today, the relation between the farmer, baker and the consumer is totally gone due to the developments of the industrial revolution.

Likely your grandparents still learned how to make bread in their childhood. It is rare that a child today can explain you how bread is made. The developments within the food industry have brought benefits to our luxury and freedom. However efficiency and profits have led us to a point were the relation between us and the food we eat is poor.

In a few months from now, you will be eating your own made strawberry jam sandwich, with a pile of knowledge and a rich experience of how to grow and make your own food. Just as people have done for thousands and thousands of years.

We as people like to explore and understand the world around us. There is a great amount of pleasure taken from having

the understanding and experience of how the food we eat everyday is made. Bread for instance, it has been eaten for thousands of years and is eaten among many different cultures as the main part of the diet. Knowing how to make bread has been a matter of survival for our ancestors. This is clearly not the case anymore now. But making your own bread, from the process of sowing seeds to eating dinner will for sure be an fun and rewarding experience!

This kit provides you with all necessary to grow your own strawberry jam sandwich. It starts from sowing your seeds. Now, love, dedication and patience are required to grow your crops and make them ready for harvest. You will learn how to make delicious jam from your strawberries. Turn your wheat grains in to flour and learn how to make your own yeast from raisins. Now bake your own whole wheat bread, spread your jam on it and enjoy your home grown strawberry jam sandwich!

This manual is written in chronological order. Read the manual along the way, each step is subsequent to the previous. Of course it might be a good idea to read it one time ahead. Then along your journey of growing your own strawberry jam sandwich, the book can be used as a day to day guidance.



March - April

A good preparation is half the work, This manual will guide you through the process of growing your own strawberry jam sandwich. Being able to successfully growing your crops is related to season, climate, weather conditions and some luck. Sow your seeds early during springtime, this might vary due to your location. You can check the sowing calendar for the sowing and harvesting months. Sowing early in springtime is beneficial for your yield. However, the risk of damage to your crops due to night frost is higher during the early months of spring. It might be wise to sprout your seeds under the protection of glass or inside.

The kit contains a large and a small growing bag. Relatively for the wheat and strawberries. The growing bag for the wheat has an area of 0,25 square meters. This should be enough for a yield of approximately 250 grams. The bag for the strawberries is 0,04 square meters and will approximately result in a yield of 100 grams.

Mix the soil in a bucket, add 3 liters of water. Do the same for the second packaging. Now divide the soil, relative over the volume of the two grow bags. It is time to sow your seeds now.

Sow the wheat seeds in the big grow bag, evenly spread out the seeds over the surface of the bag. Sow your seeds approximately 3 centimeters under the soil. The wheat seeds are frost resistant so they can directly be placed outside.

Sow your strawberry seeds at a distance of 0.3 centimeters below the surface in the small grow bag. Since the small plants are very vulnerable it is wise to let them germinate inside, covered with plastic foil. Depending on your location, the small plants may be placed outside after sprouting. However keep notice of night frost for which the plants should be moved inside.

- · Read the manual
- Mix 3 liters of water with the soil block. Repeat for the second packaging.

Wheat Planting

- Divide 4/5 of the soil into the big grow bag.
- Sow the Wheat seeds at a depth of 3 centimeters.

Strawberry Planting

- Divide 1/5 of the soil into the small grow bag.
- Sow the strawberry seeds.



Sowing Calender



The sowing calendar seen on the left is also displayed on the inside of the lid of the box. When you start your journey in March, place the lid in the box with the calendar facing upwards. The months on the calendar correspond with the divisions within the box.

Use the lid as a time indication and slide it to the right according to the calendar, every day or week. New compartments will show up, containing all necessary tools related to that specific phase.



ing Preperation April March



April - June

Howdy farmer! Your adventure has begun. Your plants have sprouted but there is still a long way until harvest. Love and dedication are required to keep your plants growing up to maturity.

First of all your plants need water to grow. Watering is related to weather and climate conditions and since you are growing in pots instead of into your garden, more frequent watering is required. However over watering might be just as bad as under watering. Thus it is important to anticipate on the conditions of your plants. As a rule of thumb you can water your plants everyday. Adjust the amount of water to the weather and directly give water when the plant or leaves go limp. Before you know you will develop a feeling for this.

Secondly, your plants need nutrition to grow. The soil provided already contained plant nutrition for the first weeks. Around May, it is necessary to provide your crops with more nutrition in the form of an organic fertilizer. There are two jars with fertilizer in the kit, respectively for the strawberries and the wheat. Mix with water and pour them on the soil with a watering can.

As being a perfect habitat, your crops will attract all kinds of insects. Unfortunately, some of these can seriously damage your plants. Regularly check your plants for aphids and bug eggs. Immediately remove them by picking them off with your hands. Ladybirds are the natural enemy of aphids, they will help you to fight them, so welcome them whenever they show up. Small spiders and flies can neither do harm and do not have to be removed.

- Anticipate watering on plant conditions, weather and climate. Water everyday.
- · Add fertilizer in May by mixing with water and pouring over your crops with a watering can.
- Remove aphids and bug eggs from your plants.
- Be dedicated and patient.













July - August

Congratulations farmer! It is time that your hard work pays off. Lets make some strawberry jam. Harvest your strawberries ,leave the unripe ones for a later harvest. Leave your plants outside for the possibility of another harvest later.

Sterilize the Weckpot

You are going to store your jam in the weckpot provided. In order to be able to keep the jam fresh for a larger amount of time, the weckpots have to be sterilized. This is done with a pan on the stove with boiling water. Add the weckpots and boil them for at least five minutes. Turn the flame down and wait for the water to cool down to be able to grab the jars. Be careful to have clean hands and only touch the weckpots on the outside which is not going to be in contact with the jam. Place them on a clean towel to dry.

Making strawberry jam

Fresh strawberries are delicious to eat. However, keeping them fresh for a longer period is a problem. To avoid your harvest turning into waste, we are going to make strawberry jam, which can be stored for up to 3 months.

This recipe is for 100 grams of strawberries. The first step is to wash and let dry. Then remove the hard crown at the top of the strawberry. Put them in a bowl and add the 100 grams of sugar provided in the Weck jar. Cover with plastic and leave at room temperature for 12 hours. This allows the natural binder from the strawberries to release. Now, put the mixture in a pan on the stove. Add one tablespoon of lemon juice. Leave for 25-30 minutes on a low flame. The mixture will stiffen when it has cooled down. Be careful not to cook the mixture for to long. The jam will be watery and taste like caramel. Leave for then minutes before filling the weckpot. Close the cap and place upside down, this will allow the weckpot to turn vacuum. In a cool and dark place, your strawberry jam can be stored for 3 months.

Sterilize the weckpots

- Put a pan with water on the stove, add two tablespoons of soda and bring to boil.
- · Place the weckpot in the boiling water and leave boiling for at least five minutes.
- Remove from the stove and let it cool down.
- · Rinse the weckpot with tap water and place on a clean towel to dry.

Make strawberry jam

- Harvest the strawberries. Leave the plant for the possibility of another harvest later.
- Save some strawberries to extract seeds for next year.
- Crush these strawberries to extract seed from with a fork and leave them to dry on a towel. The seeds will remain.
- · Wash the other strawberries and remove the hard top part.
- Save all plant waste material for composting (see composting chapter).
- Weigh your strawberries. 100 grams of strawberries should be added to the 100 grams of sugar.
- Cover with foil and leave outside of the refrigerator for 12 hours.
- Add one tablespoon of lemon juice.
- Put on the stove and cook for 25-30 minutes.
- Remove from the stove an cool for 15 minutes.
- · Fill the weckpot and put the jar upside down so it turns vacuum.















August

While your strawberry jam was already waiting to be spread on a sandwich, the wheat still needed some time for ripening. When your stems are gold yellow, somewhere around August, it is time for harvest.

Harvesting the wheat

After six months from sowing your wheat, your plants are ready to harvest. They have sprouted into small little wheat grasses and turned from deep green into dried yellow. Dedication pays off! Cut the stems and remove the grains from the stem by picking them by hand.

Grain to flour

We are making big steps now. You have separated the wheat grains from the plant and it is time to turn the grains into flour. There are two types of wheat flour, whole wheat flour and white flour. Both can be made from the same grain. The difference is within the shell. Whereas with whole wheat, the whole grain is grinded, for white flour the shell is removed before the process of grinding. Since most of the nutrition of the grain is in the shell, whole grain flour is more healthy and nutritious than white flour. We are going to make whole wheat grain here. Pour the grains in the hand mill provided and grind until it has reached the fine structure of flour. Grinding one time is enough but for a more fine flour you can grind for multiple times.

Make Yeast

Bread dough needs to rise. You are going to make Yeast to do so. Yeast are small bacteria that will allow the bread to multiply in volume. A jar with raisins is provided in the kit. Fill the jar with 2 centimeters of water. Now leave the jar at room temperature for approximately 5-7 days, while shaking the jar once a day. Also open the lid each day to release air inside the jar. When the escaping gas makes a noticeable sound after 5-7 days the raisins should be

filtered from the residue. Add a few tablespoons of your own processed flour to the residue until it gets a dough like structure.

Again leave the jar at room temperature for 5-7 days, while opening the lid to release gas every day. After five days the volume of the yeast should have doubled. It is now ready to process in your bread.

Make Bread

Mix 250 grams of your self made flour with 5 grams of salt provided in the kit. Now add 150 ml of lukewarm water and add the yeast. Knead until the dough has a consistent texture. Now cover with a wet towel and leave at room temperature for one hour. After one hour, knead the dough again, now put it in the bread mould provided and cover with the wet towel for a second rise. When the volume of the dough has doubled it is ready for baking. This is done in a preheated oven at 200 degrees for 45 minutes.

Harvest the wheat

- · Cut the wheat branches, remove the grains from the stem.
- Save some seeds to plant next year.
- Save all plant waste material for composting.

Make flour

- Wash and clean the grains.
- Grind the grains in the grinder.

Make yeast

- Add water to the jar with the raisins.
- Leave at room temperature for approximately 5-7 days, while shaking the jar each day. Also turn the lid each day to release the gas.
- Once the escaping gas makes a good sound, filter the raisins out of the water.
- Add some flour to the yeast water until it becomes a dough like structure.
- Leave standing at room temperature for another 5-7 days until it has doubled in volume.



Bake bread

- Mix 250 grams of flour with 5 grams of salt.
- Add the yeast.
- Add 150 ml of warm water.
- Knead well.
- Lubricate the mould.
- · Place in a bowl and cover with a wet towel. Leave for approx. 1 hour at room temperature.
- Knead the dough and place it in the mould. Cover again for the second rise. Leave until it has doubled in volume.
- Bake in a preheated over at 200 degrees for about 45 minutes.

























September - March

By now you have learned a lot about growing your own plants and processing them into food. It is time to close the circle. In nature, this process repeats every year. Along the way you have been advised to save some of the harvest as seeds for next year. As well to not throw away but save the plant waste material for composting.

Composting is the process where organic material is decayed into soil that is used as fertilizer for growing plants. It is a natural process that does not necessarily requires addition any other than organic waste material. It is important to keep the pile wet, and hustle every now and then to allow air flow through the compost.

The compost can be used as fertilizer for growing your plants next year.

- All natural waste (stems, raisins) can be composted in the (empty) container.
- Also add organic kitchen waste materials such as egg scales, banana peel, etc.
- Regularly turn the pile to allow oxygen into the compost.
- Keep the pile wet by adding water.



Materials that can be composted

Hair

Blood meal

Hay

Bone meal

Lake weeds

Coffee grounds

Leaves

Crushed egg shells

 ${\sf Feathers}$

Fruit

Paper(non-recyclable)

Fruit peels and rinds

Peanut shells

Garden debris, dried

Straw

Garden debris, fresh

Pumpkins

Grass clippings, dried

Vegetable scraps

Grass clippings

Tea grounds and leaves

Materials should be avoided

Bones

Cat litter

Charcoal and briquettes

Cooked food waste

Dairy products

Dishwater

Fatty, oily, greasy foods

Fish scraps

Meat

Paper, glossy colored

Peanut butter

Pet wastes, human excrement