



# Mineral brews

How to prepare mineral mixtures to control some nutritional deficiencies and crop diseases

**6 RECIPES TRIED AND TESTED BY FARMERS**

COLD



HOT



# LIME-SULPHUR BREW



# LIME-SULPHUR BREW

*ingredientes*



**50 LITRES BOILING WATER**

**10KG SULPHUR**

**5KG LIME (CALCIUM OXYDE OR HYDROXYDE)**

**QUICKLIME (NOT AGRICULTURAL LIME)**

# LIME-SULPHUR BREW

*Preparación*

IMG\_5856.jpg

Bring the water to boiling point

# Caldo sulfocálcico

Preparación

IMG\_6790.JPG



**MIX ASIDE LIME AND  
SULPHUR**

# Caldo sulfocálcico

Preparación

IMG\_6790.JPG

**ADD TO THE BOILING WATER**



**MIX AND STIR IN STRONG FIRE FOR ABOUT 35 MINUTES**



**IF THE MIXTURE STARTS TO BOIL OVER, SPRINKLE SOME COLD WATER TO BRING IT DOWN, KEEP AN EYE ON IT.**





**THE COLOUR SHOULD TURN DARK RED**

# Caldo sulfocálcico

Preparación

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**TRANSPARENT RED, A STABLE SOLUTION**

**KEEP IN DARK PLASTIC RECIPIENTS, WITHOUT AIR OR SUNLIGHT**

**YOU CAN SEAL YOUR RECIPIENT BY ADDING VEGETABLE OIL ON TOP**

# LIME-SULPHUR BREW

- IT ADDS NUTRITION, ENHANCES HEALTH OF PLANTS
- ITS A BROAD SPECTRUM FUNGICIDE, MORE THAN 40 FUNGAL DISEASES
- IT ALSO CONTROLS:
  - MITES
  - CANKER
  - TRIPS
  - RUST
  - TICKS

**FOLIAR SPRAY CAN BE USED ALONE OR MIXED WITH BIOFERTILISER, NOT WITH PHOSPHITES  
APPLY EVENING WITH NO SUN OR HEAT**

**USE 3 TO 6 LITRES IN 100 LITRES OF WATER (0,5 TO 1 L INTO A 20 LITRE BACKPACK)**

**USE 1 TO 3 PERCENT MIXED WITH BIOFERTILISER, IT ACTS AS NUTRITION**

# Pasta sulfocálcica

Preparación

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**AT THE BOTTOM THERE WILL BE A PASTE, KEEP OIL SEALED.  
YOU CAN USE IT DILUTED IN WATER 1L TO 1L TO PAINT OVER  
WOUNDS ON TREES AND AFTER PRUNING**

# CANKER TREATMENT ORCHARD with LIME-SULPHUR PASTE



# ASH BREW



## Ash based mineral brew

### Ingredients

- 10 kilos of well sifted ash
- 1 kilo of bar soap (not detergent).
- 40 litres of water
- One vat or metal barrel.
- One wood fire

Soap

# ASH BREW

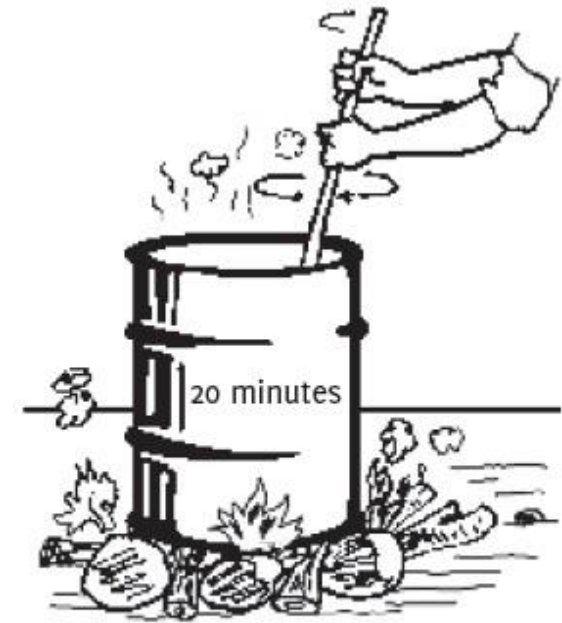
## How to prepare it

### Step 1

Mix the ash and soap in water in a vat or metal barrel, and put it on the fire for approximately 20 minutes.

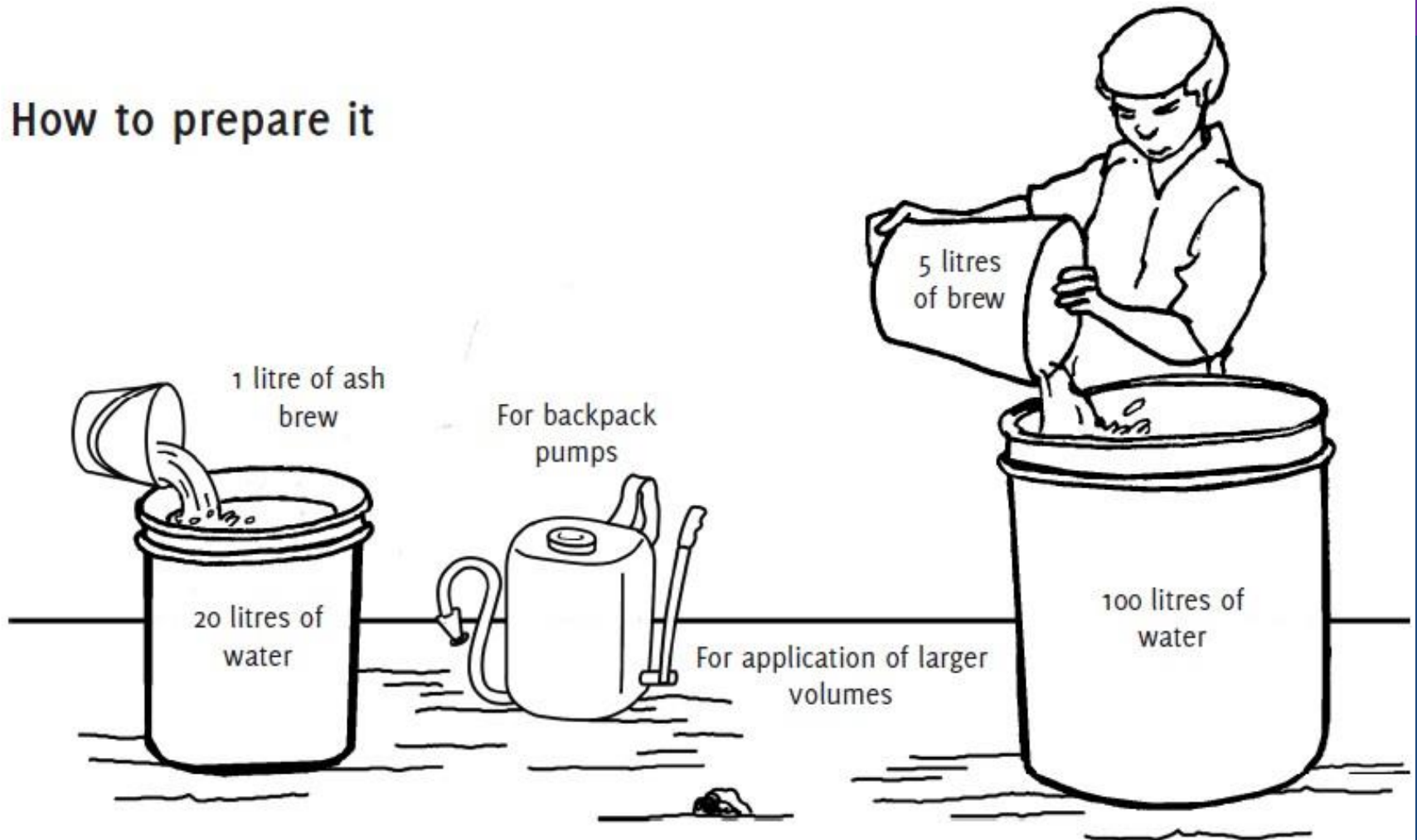
### Step 2

Take it off the fire and let it cool. Then it is ready for application.



# ASH BREW

How to prepare it





# ASH BREW

- IT REINFORCES CROP BIOPROTECTION
- CONTROLS APHIDS
- MAIZE ARMYWORM
- HEARTWORM
- CUTWORM
- WHITE FLY
- COCHINEAL

# ASH BREW

- To make application of this brew more efficient to control insects with a waxy body or scales, it is recommended to prepare it as a mineral emulsion, adding two litres of vegetable oil or diesel when preparing the original recipe. It is preferable to add the oil just after taking the receptacle off the fire.

# COLD BREWS



# BICARBONATE BREW



## Sodium bicarbonate based brew

### Ingredients

- From 1 to 1½ kilo of sodium bicarbonate.
- 100 litres of water.

The bicarbonate is mixed directly in the water and stirred until obtaining a homogeneous, transparent blend.

**NOTE: IF YOU FIND POTASSIUM BICARBONATE IS EVEN BETTER**

# BICARBONATE BREW

## How to apply it

The brew is applied pure (without dissolving) on the crops, to control mildew or ash rot and to control the fungus *Botrytis spp.*, mainly on the following crops: pumpkin, cucumber, grape, sponge gourd, melon, beans, strawberry, tomato, chilli, garlic, onion and green bean, among other crops attacked by such diseases.

# VIÇOSA BREW

- 20L WATER (OR 18 WATER AND 2 URINE)
- 100GR QUICKLIME
- 100GR ZINC SULPHATE
- 100GR MAGNESIUM SULPHATE
- 100GR COPPER SULPHATE
- 100GR BORAX (BORON)

**5 LITRES OF WATER CAN BE REPLACED BY COW DUNG BIOFERTILISER**

# VIÇOSA BREW

- IT ACTS AS GENERAL STIMULANT FOR PLANTS
- PREVENTS FUNGAL ATTACKS
- FOLIAR SPRAY ON THE EVENING
- START APPLICATION AT 50% DILUTION WITH WATER AND INCREASE CONCENTRATION AS NECESSARY
- APPLY IMMEDIATELY, DO NOT STORE

**DEVELOPED SPECIALLY FOR COFFEE RUST  
IT WORKS WELL AS A GENERAL FUNGICIDE  
VERRUCOSIS IN AVOCADO TREES, ANTHRACNOSIS IN MANGO**

# BORDEAUX MIX



## Bordeaux mix at 1% Ingredients to prepare 100 litres of mix

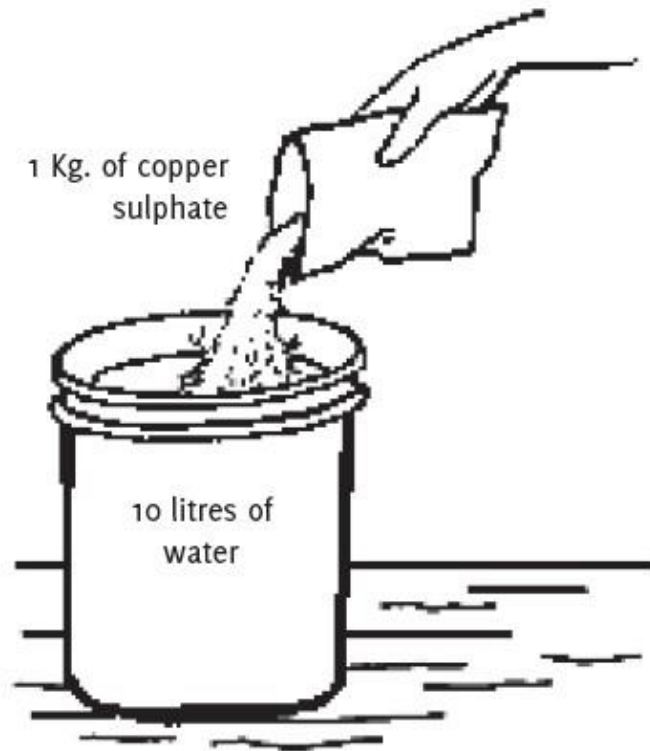
- 1 Kilo of quick or slaked lime (calcium oxide or calcium hydroxide).
- 1 Kilo of copper sulphate.
- 1 Plastic receptacle: Capacity 100 litres.
- 1 Small plastic bucket: Capacity 20 litres.
- 1 Wood stick to stir the mix.
- 1 Machete to test the acidity of the mix.
- 100 Litres of water.

**NOTE: USE WITHIN 3 DAYS OF PREPARATION  
ADAPT QUANTITIES PROPORTIONALLY AS NECESSARY**



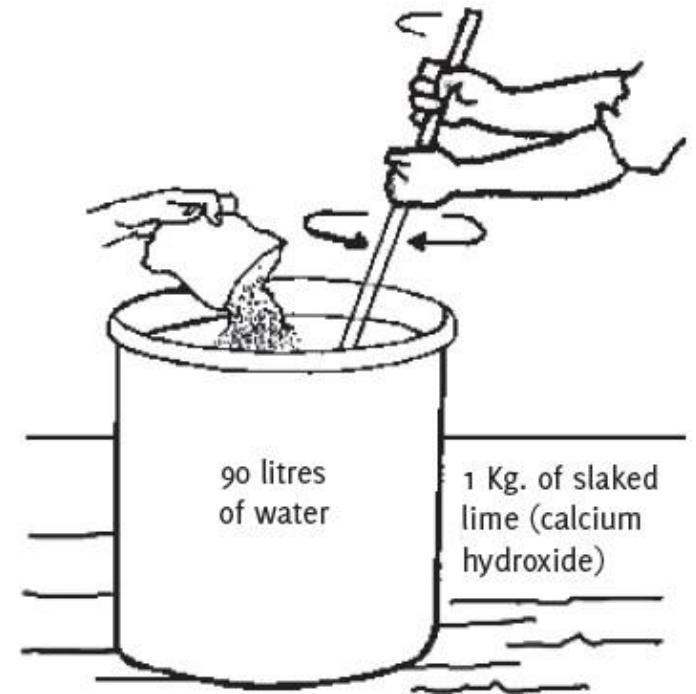
## Step 1

Dissolve the kilo of copper sulphate in 10 litres of water in a small plastic bucket.



## Step 2

Dissolve the kilo of slaked or quick lime in a large plastic receptacle, previously slaked in 90 litres of clean water.

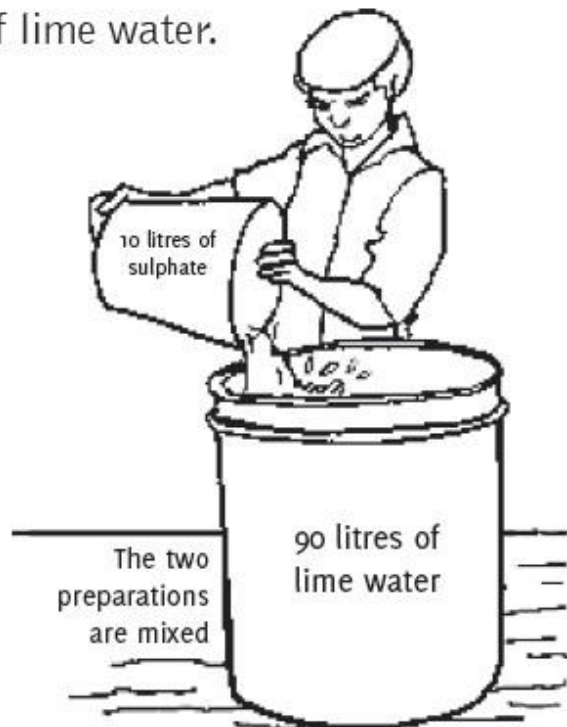


- 1 kg of copper sulphate.
- 10 litres of water.
- 1 kg of slaked lime (calcium hydroxide or builder's lime).
- 90 litres of water.

### Step 3

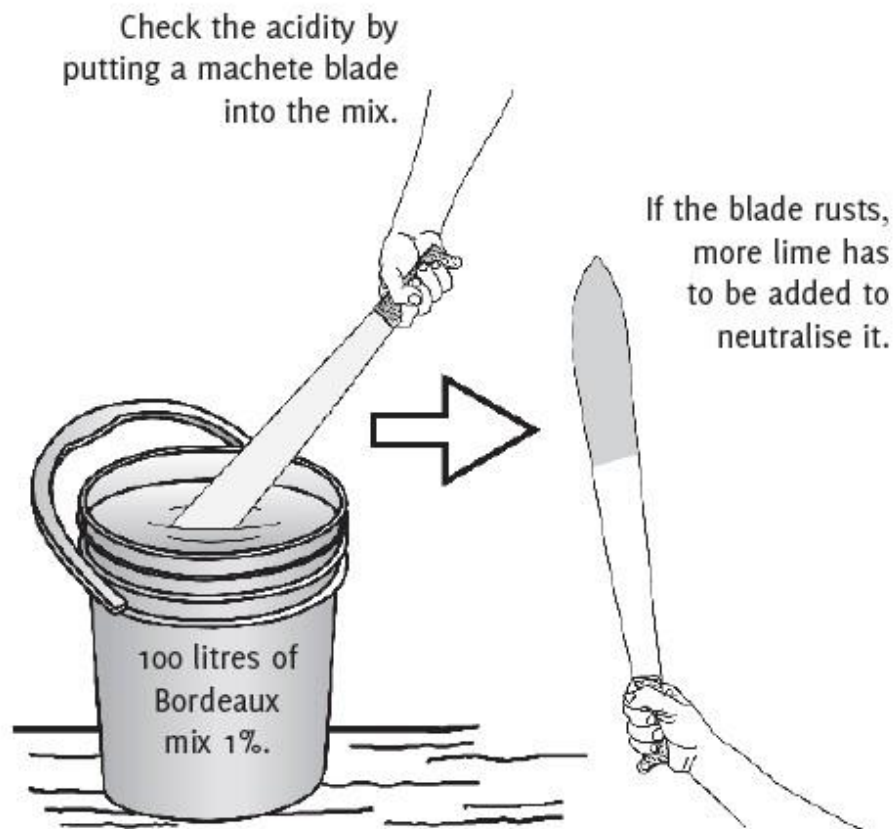
After having dissolved the two ingredients separately (the lime and sulphate) are mixed, **always taking care to add the copper sulphate preparation to the lime.** Never do the opposite (the lime on the sulphate) and stir constantly. This procedure allows the most chemically homogeneous mix to be obtained.

- 10 litres of sulphate.
- The 2 preparations are mixed.
- 90 litres of lime water.



### Step 4

Check whether the acidity of the preparation is optimal for application to crops. It is checked by putting a machete into the mix and whether the metal blade rusts (red stains) because it is acid and requires more lime to neutralise it; if this does not happen, it is because it is ready for use.



# BORDEAUX MIX

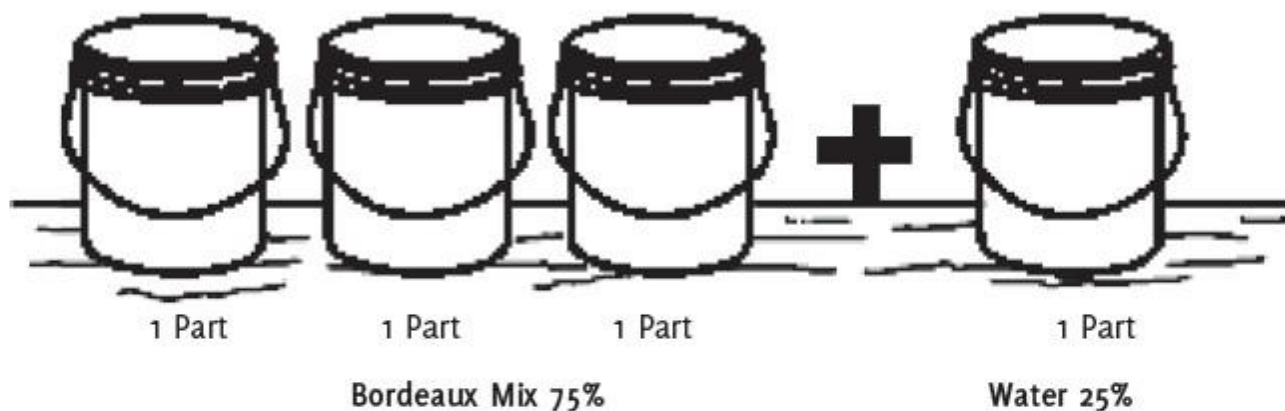
- GENERAL FUNGICIDE
- CONTROLS SCAB
- ENTOMOSPORIOSIS
- MOULD
- ANTHRACNOSE

**NOTE: DO NOT HEAT COPPER SOLUTIONS  
NEVER USE MIXED WITH HERBICIDE  
DO NOT STORE**

## Recommendations for Bordeaux mix for crops

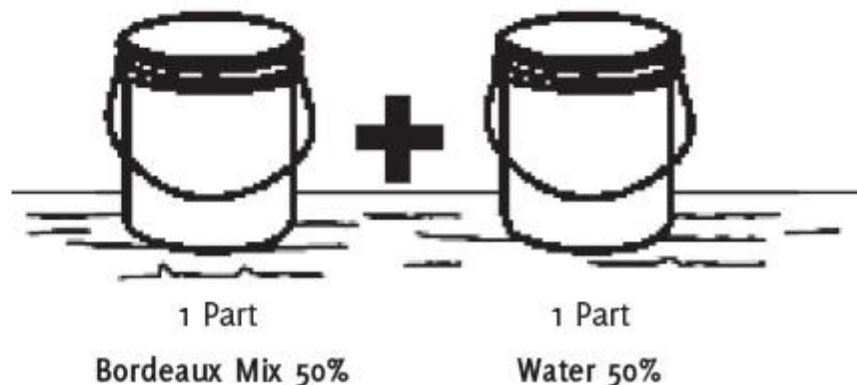
- a. For onion crops, garlic, tomato, beetroot and others: 3 parts of brew (75%) + one part of water (25%).

Dilution 3:1



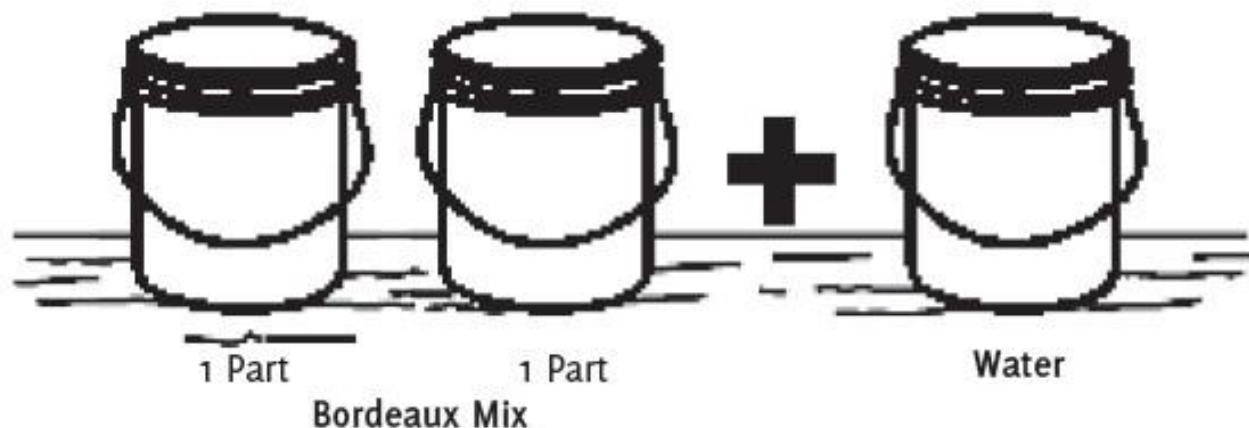
- b. For crops of beans, peas, cabbage, cucumber, pumpkin, cauliflower, others: 1 part of brew (50%) + 1 part of water (50%).

Dilution 1:1



- c. For crops of tomato and potato, after the plants are 30 centimetres high, it is recommended to apply it gradually at intervals between 7 and 10 days with the pure preparation or with a dilution of 2 parts brew + 1 part of water.

Dilution 2:1



#### Remark

The brew may be applied pure for crops of potato, tomato, banana and coffee, in full plant development.

# APICHI

## FOR INSECT CONTROL

### FORMULA FOR 180 LITRES

#### BASIC INGREDIENTS (PRE-FERMENT FOR 3 DAYS)

- 10 KG OF GARLIC
- 2 KG OF BLACK PEPPER GRAIN OR GINGER (DRY OR FRESH)
- 10 KG OF HOT CHILLIES (FRESH OR POWDER)
- 15 LITRES OF BASIC NATIVE MICROBES BIOFERTILISER (OR 2 LITRES OF VINEGAR AND 13 LITRES OF WATER)
- 4 LITRES OF 96% ALCOHOL OR ETHANOL
- 15 LITRES OF CHLORINE FREE WATER

LEAVE THIS MIX FERMENT FOR 3 DAYS, COVERED BUT NOT AIRTIGHT  
AFTER IN THE 4TH DAY ADD WATER UNTIL COMPLETE 180 LITRES

**FERMENTATION TIME:** 15 DAYS.

**NOTE: THIS PREPARATION NEEDS TO BE APPLIED WITH PROTECTIVE GLOVES, GLASSES AND MOUTH AND NOSE PROTECTION**

**DO NOT APPLY JUST BEFORE HARVEST, AT LEAST 3 DAYS BEFORE**

# APICHI

## FOR INSECT CONTROL

### USES

- SOFT BODY INSECTS
- WORMS
- APHIDS
- WHITE FLY
- MITES
- WEEVIL
- CHEWERS
- SNAILS
- BIRDS

**APPLICATION:** 500 ML TO 1 LITRE OF APICHI INTO 20 LITRES OF WATER (2 A 5 %)

# MEZCLA DE CALDOS FRIOS Y CALIENTES

Some of the brews we prepared were by heating, once get cold and settle, we can mix with some of the cold brews.

**We can highlight:**



# MIX

- Bordeles brew (1%) mix with limesulphur brew.
- Bordeles brew (2%) mix with limesulphur brew.
- Bordeles brew (1%) mix with Potassium permanganate.
- Visosa brew mix with limesulphur brew.
- Limesulphur brew enriched with Zinc sulphate.
- Some of them (the ones based in Sulphur) can be mix with biofertilisers once we are going to apply.

***“THE BEST WAY TO CONTROL  
DISEASES IS TO PROMOTE  
GOOD HEALTH WITH  
CONSISTENTLY HIGH QUALITY  
NATURAL NUTRITION”***

**THANK YOU**