

# Oriental Herbal Nutrient (OHN)

---



**Cho Global Natural Farming(CGNF)**



# Oriental Herbal Nutrient (OHN)

---

- ✿ Full of energy and function to increase plant robustness.
- ✿ To sterilize.
- ✿ To keep plants warm.
- ✿ Revitalizes crops and activates their growth.



# Manufacturing environment

---

- ✿ Optimum season for preparation: **spring or fall**
- ✿ Temperature for preparation: **23~25°C**
- ✿ Temperature for storage: **1~15°C**



# Materials

---

## ✿ Main materials

### ▪ Dry state

- Gigantic angelica root (*Angelica gigans*)
- Cinnamon bark
- Licorice root (*Glycyrrhiza glabra*)

### ▪ Raw state

- Garlic
- Ginger

## ✿ Secondary materials

- 'Makgeolli' (Korean rice wine)
- Brown sugar
- 'Soju' (Korean distilled liquor) (30~35% alcohol)



# Main materials



Gigantic Angelica Root



Cinnamon Bark



Licorice Root



Garlic



Ginger



# Tools

---

## ✿ Clay jar

- 20ℓ jars (for each herb) : 6 jars

## ✿ White paper through the air

(Korean name 'Hanji' or paper towel)

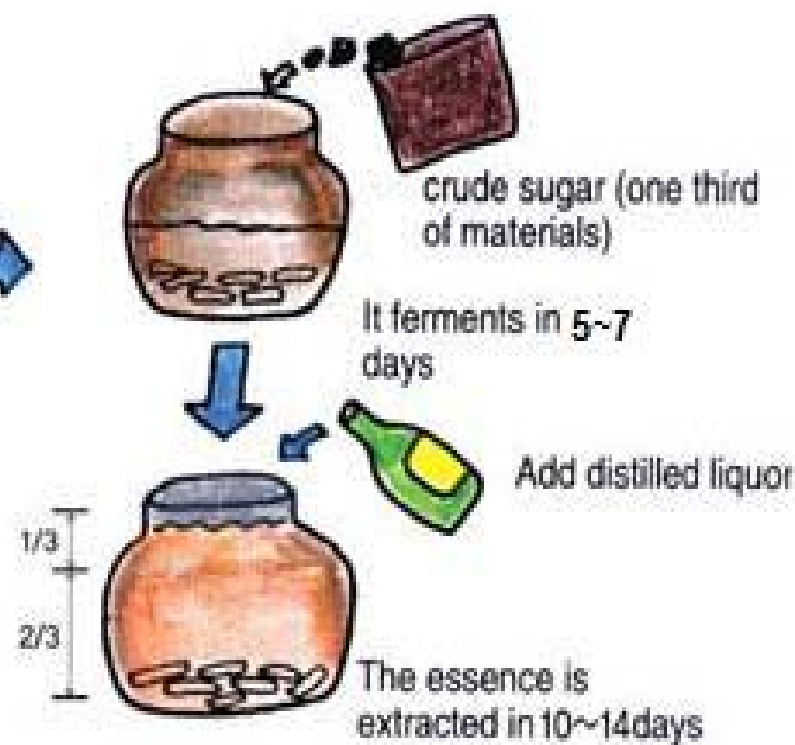
## ✿ vinyl film

## ✿ Wooden sticks for stirring

## ✿ Rubber bands

# Manufacturing methods (Dry state)

chinese herbs such as *Angelica acutiloba*, *Glycyrrhiza uralensis*, *cinnamomum loureirii*





# Manufacturing methods (Dry state)

---

- ✿ The amount of material:  
the amount of dry state + the amount of rice wine
- ✿ The amount of dry state: the volume of the jar X  $1/10$
- ✿ The amount of rice wine: the amount of dry state X 3
- ✿ The amount of material should occupy  $1/2$  of the space of the jar.



# Manufacturing methods (Dry state)

---

- ✿ The amount of brown sugar  
= The amount of material
- ✿ Material + Brown sugar =  $\frac{2}{3}$  of the jar
- ✿ The amount of 'SOJU' : the remaining  $\frac{1}{3}$  of the jar



# Manufacturing methods

## (Dry state)

- ✿ The process of Raw state : Dry state + Rice wine
- ✿ Time required : 1~2days





✿ 20L jar

✿ The amount of dry state :  $20L \times 1/10 = 2kg$

✿ The amount of rice wine :  $2kg \times 3 = 6L$





# Manufacturing methods (Dry state)

✿ The process of fermentation:

Raw state + Brown sugar

✿ Time required : 5~7days





# Manufacturing methods (Dry state)

## ✿ Stabilization process :

The process of fermentation + 'SOJU'

## ✿ Time required : 14days





# Manufacturing methods

## (Raw state)

✿ **The amount of material : The amount of raw state**

- The amount of raw state : The amount of material  
(Dry state + Rice wine)

\* The amount of material should occupy  $\frac{1}{2}$  of the jar

✿ **The amount of brown sugar = The amount of material.**

\* The amount of material + the amount of brown sugar =  $\frac{2}{3}$  of the jar

✿ **The amount of 'SOJU' = The remaining  $\frac{1}{3}$  of the jar.**



# Manufacturing methods

## (Raw state)

- ✿ **The process of fermentation :** Raw state + Brown sugar
  - Raw state 8kg+Brown sugar 8kg
- ✿ **Time required :** 5~7days





# Manufacturing methods (Raw state)

## ✿ Stabilization process :

The process of fermentation + 'SOJU'

## ✿ Time required : 14days





# Reuse 4~5 times

---

- ✿ For cinnamon bark
- ✿ 15ℓ of OHN can be extracted from the first brew.
- ✿ However, 5ℓ is used for the second brew.
- ✿ 10ℓ of OHN can be obtained from the first brew.
- ✿ 10ℓ can be extracted from the second through the 4<sup>th</sup> brew, and 15ℓ from the 5<sup>th</sup> brew.



# How to dilute OHN

---

✿ The dilution ratio of OHN to water is 1:1,000.

- The ratio can be changed depending on the weather or the condition of the plant.

✿ Using the ratio:

2(*Angelica*): 1(licorice): 1(cinnamon): 1(garlic): 1(ginger)

✿ For example, dilute OHNs 1,000 times with 18ℓ of water, then mix

6cc (*Angelica*), 3cc(licorice), 3cc(cinnamon), 3cc(garlic),  
3cc(ginger)



# How to keep OHN

---

- ✿ By using jars, glass bottles, or PE containers
- ✿ Temperature : 1 ~ 15°C
- ✿ No direct sunlight
- ✿ Enough ventilation
- ✿ Make airtight



# How to use OHN

---

- ✿ For making IMO #3, IMO #4
- ✿ The soil treatment solution
- ✿ The seed treatment solution
- ✿ Nutritional growth period
- ✿ Change-over period
- ✿ Reproductive growth period
- ✿ OHN is always used in Natural Farming.



# THANK YOU

---



**Cho Global Natural Farming(CGNF)**