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.
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
- Rice wine or beer (same amount as materials)
- After 1~2 days

Crude sugar (one third of materials)
- It ferments in 5~7 days
- Add distilled liquor
- The essence is extracted in 10~14 days
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 = 2/3 of the jar

- The amount of ‘SOJU’ : the remaining 1/3 of the jar
Manufacturing methods
(Dry state)

- The process of Raw state: Dry state + Rice wine
- Time required: 1~2 days
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20L jar

- The amount of dry state: \(20L \times \frac{1}{10} = 2\text{kg}\)
- The amount of rice wine: \(2\text{kg} \times 3 = 6\text{L}\)
Manufacturing methods (Dry state)

The process of fermentation:
Raw state + Brown sugar

Time required: 5~7 days
Manufacturing methods (Dry state)

* Stabilization process:
  The process of fermentation + ‘SOJU’

* Time required: 14 days
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 1/2 of the jar

✿ The amount of brown sugar = The amount of material.
  * The amount of material + the amount of brown sugar = 2/3 of the jar

✿ The amount of ‘SOJU’ = The remaining 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: 5~7 days
Manufacturing methods (Raw state)

Stabilization process:
The process of fermentation + ‘SOJU’

Time required: 14 days
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 4th brew, and 15ℓ from the 5th brew.
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:

\[2(\text{Angelica}) : 1(\text{licorice}) : 1(\text{cinnamon}) : 1(\text{garlic}) : 1(\text{ginger})\]

For example, dilute OHNs 1,000 times with 18 litres 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

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