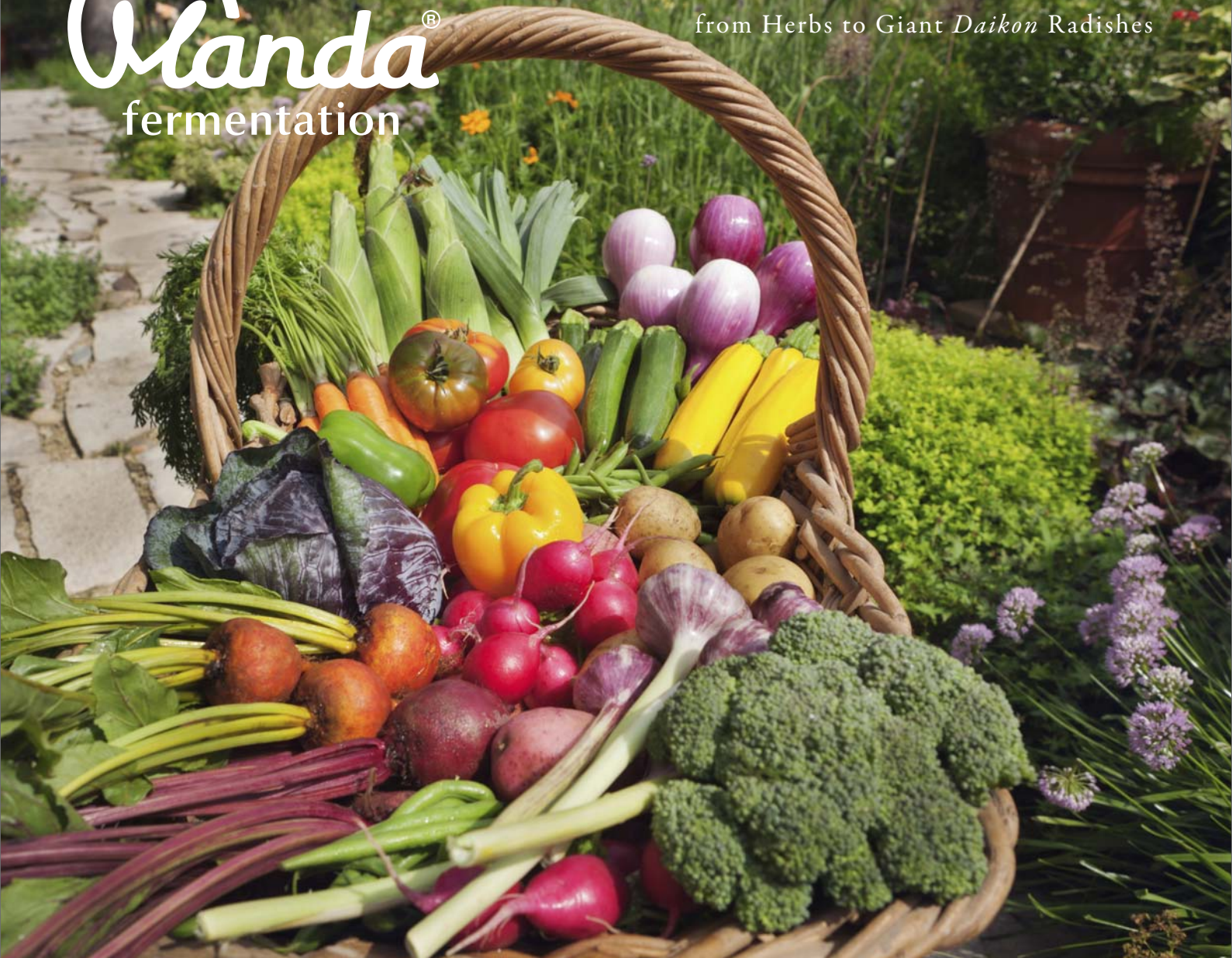


Manda[®]
fermentation

Good for All Kinds of Plants,
from Herbs to Giant *Daikon* Radishes



What Is Manda Amino Alpha?

Manda Amino Alpha is a fertilizer made by adding liquid fertilizer to plant-use Manda Koso. Plant-use Manda Koso is made by fermenting several dozen ingredients—including natural brown sugar, fruits, root vegetables, cereals, and edible algae—for over three years. Adding to this mix liquid fertilizer comprising mainly organic materials produces Manda Amino Alpha.

Note: Manda Amino Alpha contains a small amount of chemical fertilizer (urea), so agricultural produce made using Manda Amino Alpha is not eligible for organic certification in Japan.



Major Benefits

- Vitalizes plants (deeper root growth and improved intake of nourishing water)
- Increases yield
- Improves quality
 - Better taste (higher sugar content, higher palatability value for rice), higher nutrient content, more vivid color for flowers
- Enhances disaster recovery power (from natural disasters such as typhoons)
- Prolongs shelf life (keeps freshness longer, delays decreases in palatability value due to aging)

Recommended for People Who...

- Want to grow their plants healthy and strong
- Want to improve taste, increase nutrient content, and enhance vividness of flowers
- Want to enjoy gardening

How to Use Manda Amino Alpha

How to make 10 liters of diluted solution (diluted by a factor of 1,000)



Measure
Measure 10 ml using a measuring cup.



Put 10 liters of water into bucket

Put 10 ml of Manda Amino Alpha into a 10-liter bucket. Stir well while filling the bucket with water.

Note: It is recommended to use up all the diluted liquid within a day of preparing it.



Spray onto leaves and roots

Apply to leaves and roots using a sprayer or watering can.

- Manda Amino Alpha is applied to leaves using a sprayer or other such tool.
- It can also be applied to roots via irrigation or injection into the soil.
- Foliar spray generally requires a solution diluted by a factor of 1,000, but it can work effectively with dilution factors between 500 and 2,000. For vegetative growth, we recommend a dilution factor of between 1,000 and 2,000; for reproductive growth or quality improvement, a dilution factor of 500 is standard.
- When irrigating or injecting, use the same concentration as with foliar spray.
- When a large amount of diluted Manda Amino Alpha needs to be used for spraying, irrigation, or injection, use 300 ml of Manda Amino Alpha per 1,000 m².
- A watering can would be more convenient and effective for small plants or for plants in the seedling stage.

Points for Effective Application

- A rough standard of use is 1 liter of diluted Manda Amino Alpha per 1 m². (Increase or decrease the amount according to the size of the plants and the environmental conditions.)
- Apply once every seven to ten days.
- Insufficient nourishing water can reduce the effectiveness of Manda Amino Alpha. Be sure to replenish the necessary amount of nourishing water, according to the plant's growth conditions.

Caution during Use

- Manda Amino Alpha contains a fertilizing component so do not use it for immersing seeds or when cutting for plant propagation.
- Take care so that undiluted Manda Amino Alpha solution or highly concentrated Manda Amino Alpha dilution does not contact plants directly.
- Use Manda Amino Alpha in conjunction with regular fertilization procedures.

Manda Amino Alpha Q&A

What It Is

Q Put simply, what is Manda Amino Alpha?

A . Manda Amino Alpha is a product designed to bring out the intrinsic vitality of plants. Plants that have been given Manda Amino Alpha via spraying or irrigating grow healthy and strong.

Q What is Manda Amino Alpha made from? How is it made?

A . Manda Amino Alpha is made by mixing a fermented botanical product, developed through years of research, with liquid fertilizer. This fermented botanical product is made by utilizing know-how accumulated during the process of developing Manda Koso—a product we created using our own original fermentation/maturation techniques. Its several dozen ingredients, which include fruits, cereals, and edible algae, are repeatedly fermented and matured for over three years. Manda Amino Alpha is a liquid with a pH of 6.0 (mildly acidic) and a specific gravity of approximately 1.2. The liquid fertilizer contains organic materials (fish extract, refined gelatin) and its fertilizing component ratio is 5-5-5%.

Q What effects can I expect from Manda Amino Alpha?

A . When sprayed, irrigated, or injected, Manda Amino Alpha enhances plant vitality and the following effects can be expected.

- ① Promotes growth (such as deeper root growth) ② Increases yield
- ③ Improves quality • Better taste (higher sugar content, higher palatability value for rice)
 - Higher nutrient content, such as for vitamin C • More vivid color for flowers
- ④ Enhances disaster recovery power (from natural disasters such as typhoons, floods, and low temperatures)
- ⑤ Prolongs shelf life (keeps freshness longer, delays decreases in palatability value due to aging)

Q Is it possible to use Manda Amino Alpha for pesticide-free production and organic farming?

A . Although Manda Amino Alpha does not by itself enable organic farming, it enhances plant activity and thus enables plants to grow in a healthy way. We've received feedback from around Japan that farmers have halved their disease-prevention measures for crops such as tea, apples, pears, strawberries, and tomatoes. We recommend Manda Amino Alpha for pesticide-free production and reduced-pesticide production. Please note that Manda Amino Alpha contains a small amount of chemical fertilizer (urea), so agricultural produce made using Manda Amino Alpha is not eligible for organic certification in Japan.

Q Does Manda Amino Alpha have any impact on weeds?

A . We have not specifically done tests for impact on weeds, but because Manda Amino Alpha contains a fertilizer component, weeds can be expected to grow strongly, as is the case with other plants.



Q Does Manda Amino Alpha exhibit any insecticidal/antiseptic effects?

A . Manda Amino Alpha does not exhibit direct insecticidal/antiseptic properties. However, it can be expected that damage from disease and pests may be reduced, owing to the vigorous growth of treated plants.

Q For what kind of crops is Manda Amino Alpha the most effective?

A . ① It appears that Manda Amino Alpha shows its effectiveness sooner for single-year crops than for perennial crops. Having said that, using Manda Amino Alpha every year on perennial crops appears to generate a positive cumulative effect.
 ② It seems Manda Amino Alpha has a stronger effect on indoor crops than on outdoor crops.