

“The Complete Ant Juice” Product Instructions

List of materials included with this package:

2 plastic spoons

2 Wooden stirrers

Sugar Mix Packet (See label for ingredients)

Protein Mix Packet (See label for ingredients)

Vitamin Mix Packet (See label for ingredients)

Water Mixing Bottle (optional)

Glass Vial for Ant Juice Mixing (optional)

Product instructions

Thank you for purchasing Tar Heel Ants ant food supplement, The Complete Ant Juice. This product is intended to supplement the diet of your pet ant colonies that should also include feeder insects (crickets, drosophila, mealworms etc.), fresh organic fruits (apples, pears, etc.), and honey water.

Mixing Instructions: **These instructions can be scaled down for smaller feedings using the included measuring spoons. (See table for approximate weights that will help you make your own Complete Ant Juice mixtures)

Using the included (optional) water bottle and small spoon, combine and mix 4g vitamin mixture ($\approx$ 5 small scoops) to 50ml of bottled or filtered water. This “vitamin water” is to be added to the sugar, protein and oil mixture later in the process. Store this in the refrigerator for 2 weeks before discarding and making a fresh mixture. If at any time you see clumping in the vitamin water, discard and mix a fresh batch. Do not mix this water with anything else other than to use it with your Complete Ant Juice.

Add the recommended (or your own preferred mixture) amounts of the Complete Ant Juice (see table) to a small mixing container (round-bottomed coffee cups for example). First Add the powdered ingredients then the vitamin water then stir well. Allow the mixture to sit for 10-15 minutes before stirring again and serving to your ants. Prepared ant juice should be discarded after 48 hours at room temperature (70-75 degrees Fahrenheit) or after 7 days kept in a refrigerator (40-45 degrees). Always keep covered when not serving.

Serving suggestions:

Do not use large amounts of the Complete Ant Juice at one time, particularly with smaller ants. For small and tiny ants, use the included wooden stirrer (or similar tool) and dip it in the mixed ant juice. Drag the moist end across your feeding dish or a small piece of wax paper (dipping and repeating) until you have some small droplets for the ants to drink from. Ants can drown when drinking from large droplets of liquid (compared to them, most droplets are!), so feeding them several times using small amounts is preferable to feeding them too much at one time. Using a Liquid Feeder is a good way to prevent ants from drowning while providing safe access to a larger supply of liquid. When using a liquid feeder for the Ant Juice, discard after 48 hours.

Some of the factors to consider when changing up this mixture: -Many users of The Complete Ant Juice have grown accustomed to mixing their own food over the past years. Here are some general guidelines:

-Stage of colony growth. Workers consumer sugars to give them energy and feed protein to the queen and larvae for colony growth. When there is no brood present, shift towards a high ratio of carbohydrates to proteins (2/1 reversed: Example: Use half the protein amount or less (vitamin ratio not recommended as a decrease, always use recommended vitamin levels with this supplement)).

-Time of year- during diapause periods (colder months) ants feed very little and colony growth is suspended. This can occur naturally at normal temperatures in captivity. Brood growth will be at a minimum for a colony during this time, so using no protein would be acceptable.

-Species- not all ants consume the same foods with the same results. Do your research as much as possible, or get good information from fellow ant keepers about what to feed your species to help them grow successfully. Example: Some species consume different insects with varying protein/fat contents. Those ants who get most of their protein from other foods you feed would perhaps require less protein from your supplement mixture.

Portion amounts and example of mixing

	Sugar	Protein*	Vitamin**	Oil
1 Small scoop	.1g	.05g	.08g	
1 Large scoop	1g	.4g	.8g	
1 drop				0.05g

These are approximate measurements. For more precise measurements we recommend the use of a gram scale for your food preparation.

*Recommended 2/1 sugar to protein ratio

**For every 10ml of water add $\approx$ 1 small scoop of vitamin mix to maintain the recommended level of vitamins in the food.

Mixing Examples:

2/1 (Carbohydrate/Protein) example

To prepare our recommended portion (which consumes $\approx$ 10% of provided ingredients)

of your supplies) use the following:

2 large scoops of sugar mix (2g)

2 large scoop + 4 small scoops of protein mix (1g)

8 drops of oil (.4g)

10 ml of vitamin mixture water

Add all ingredients to a container and stir (see mixing instructions)

Note: The above output of the 2/1 example (10% of your provided ingredients) will serve 20 colonies, 5 of them 3rd year colonies of large species, twice. This is considered a large amount by feeding standards, so scale your mixtures down accordingly.

The following species have been reported to use the CAJ (Complete Ant Juice) as part of their diet. This is just for reference and should not play into your decision on how much to feed your ants.

Aphaenogaster carolinensis	Cardiocondylan mauritanica	Nylanderia sp.
Aphaenogaster fulva	Crematogaster cerasi	Nylanderia vividula
Aphaenogaster lamellidens	Crematogaster sp. (North Carolina)	Ochetellus glaber
Aphaenogaster occidentalis	Dorymyrmex bicolor	Odontomachus brunneus
Aphaenogaster sp.	Dorymyrmex bureni	Odontomachus clarus.
Brachymyrmex depilis	Dorymyrmex insanus	Odontomachus erythrocephalus
Camponotus americanus	Formica archboldi	Pogonomyrmex badius
Camponotus castaneus	Formica argentea	Pogonomyrmex occidentalis
Camponotus chromaiodes	Formica neoclara	Pogonomyrmex salinus
Camponotus consobrinus	Formica pacifica	Pogonomyrmex subendatus
Camponotus essigi	Formica pallidefulva	Pogonomyrmex barbatus
Camponotus festinus	Formica podzolica	Prenolepis imparis
Camponotus floridanus	Formica subsericeaFormica podzolica	Pseudomyrmex cubensis
Camponotus floridanus	Lasius alienus	Pseudomyrmex ejectus
Camponotus laevigatus	Lasius emarginatus	Pseudomyrmex gracilis
Camponotus modoc	Lasius nearcticus	Pseudomyrmex seminole
Camponotus nearcticus	Lasius niger	Solenopsis invicta
Camponotus pennsylvanicus	Linepithema humilae	Solenopsis molesta
Camponotus planatus	Liometopum occidentale	Solenopsis xyloni
Camponotus sexguttatus	Manica hunteri	Temnothorax rugatulus
Camponotus tortuganus	Manica sp.	Tetramorium caespitum
Camponotus vicinus	Monomorium ergatogyna	Trachymyrmex septentrionalis
Cardiocondylan mauritanica	Myrmica sp.	