



# *Acromyrmex octospinosus*

## *Leafcutter Care Sheet*

*Written by AntsDavey*

### *Leaf Cutters*

Leaf Cutters! Every ant keeper's dream species. You would've seen this species in films growing up or on the BBC as a documentary. There is so much to them and they're by far the most recognizable species of ant due to their famous trait of carrying leaves to and from locations. Keeping leaf cutters comes with the great responsibility of being able to provide the correct stable temperatures/ humidities whilst being able to expand their nest when needed. I have no doubt you will relish watching a colony grow and spend endless hours enjoying their company and admiring their traits and abilities. A colony will take around 20 months to reach a mature state. Leaf cutters are very polymorphic with multiple castes! Keeping a leafcutter colony is a lot different from keeping other species of ant due to their nature and requirements.

### *Housing Leaf Cutters*

To house leaf cutters you will need to keep a few things in mind. First off, the temperature, the fungus requires a stable temperature of ideally 25c but between 23°C -26°C will be sufficient. Secondly, the humidity! Probably the most important thing when it comes to keeping leafcutters. The fungus thrives at the humidity range of 95%- 100%. It's extremely important to keep both temperatures stable and humidity as close to 100% as you can without the fungus coming in physical contact with water. In the wild, leafcutters build large deep underground chambers to house the fungus and, in their origin, it is extremely humid and warm so they never experience dry land or low temps. Failing to provide such high humidities can lead to the fungus drying out and dying. As well as exposing the queen to temps over 30c° could result in the sperm stored to be destroyed and causing her to cease laying.

### **You will require:**

#### **Nest**

A section for the fungus to flourish in with stable temps (23°C- 26°C) and humidities (90%- 100%). The fungus garden will also require some airflow but not too much that it lowers the humidity. Please remember that it is the fungus itself that requires this and not the ants. The ants themselves are quite a hardy species but look at it as both you and the ants are caring for the fungus together. Please note that providing them with too much moveable substrate will cause them to manoeuvre it around and bury the fungus which will restrict the viewing pleasures unless this is what you desire. There are a few ways to mimic this within captivity.

- You could use large acrylic cylinders with an isolated heated water source that you can top up and adjust the temp to reach the desired humidities and temps (You can buy a setup like this online pre-built or take on the mini-challenge of creating the setup yourself). Customers who have built setups themselves, tend to use a plaster-based floor with a pipe extending through it and extending out which can be hydrated by adding water to it and allowing the floor base to soak it up. Humidity is then dispersed within the fungus chamber by heating the bottom of the setup.

- You could also invest in a large tank and create an island like setup with a moat and heat the water using water heaters but please keep in mind that you may require to have a slanted lid to avoid the condensation dripping onto the fungus. In addition to this, you could also cover the fungus to avoid this happening but still keeping in mind the requirements it needs.
- You could keep it basic by simply having an absorbable substrate like coco fibre and clay balls/ hydroballs and manually hydrating the nest when needed to by using a spray bottle but be careful not to spray the fungus. You can tackle this by using a small cover over the fungus within the setup and expanding it as it grows until they fill the chamber up completely.

Any setup where you can achieve the correct conditions is perfect. In the wild, the fungus is in complete darkness but while keeping this species, I have noticed that light does not affect them in the slightest. Please keep in mind that eventually, they will fill up a fungus chamber in which they will require more room to keep expanding!

## **Foraging Area**

A foraging area in which the ants can travel to and from to cut and collect leaves to bring back to the fungus in able for the fungus to break them down and continue growing and expanding. Many people mistake leaf cutters for eating the leaves when in fact, they use them to aid the growth of the fungus in which feeds the whole colony. When creating a foraging area, you need to keep in mind the distance of the area to the nest. These ants like to travel some distance and this is where the iconic trait comes into play of you being able to see them carrying cut leaves back to the fungus. Larger colonies have been found to travel up to 100m in the quest for food! In smaller colonies, it's not necessary to provide longer distances to travel as the few foragers must collect leaves and bring them back to feed the fungus. A small walking distance to leaves is fine with smaller colonies but in more mature colonies, I'd recommend providing longer traveling distances as this encourages natural behaviour and it's great to witness the iconic trait. You can mimic this by wrapping a wide enough tubing around an object vertically to simulate them traveling a distance without taking up much room. Otherwise, expand some tubing across a room and let your imagination take over to create the setup of your dreams and enjoy this amazing species in full swing. You could also have them travel openly above you on a rope for example. Keep in mind the size of the tubing if using! Ideally, I recommend a 30mm diameter tubing size to allow the ants to comfortably bring leaves back. However, these ants aren't stupid and will be able to bring them back regardless but with more difficulty. The foraging area will require a temperature of 21°C- 27°C and a humidity range of 50%- 70%. Again, the ants themselves are hardy but it's the fungus that is sensitive to climates. Airflow within the foraging area is completely fine, as long as it doesn't affect the fungus chamber.

## **A Garbage Chamber**

A garbage chamber or a designated garbage area is very important for the ants so they can make sure they do not pile garbage near the fungus as the smell of the waste can kill the fungus itself. Create a chamber away from the nest in which the ants can throw away dead fungus and any other rubbish they no longer need. To encourage and establish an area as a "garbage chamber", you may need to manually pick up their rubbish and place it in there for them to understand the said area as the dumping ground. They will then find this chamber themselves and start to do it without your help. In the wild, leafcutters bury their rubbish in which it then fertilizes the soil which works well. In captivity, this is not possible and the rubbish will build up and will come back to haunt them so if you're using substrate then be sure it's not deep enough for this natural behaviour to occur. The garbage chamber requires a temperature of 21°C- 27°C and humidity of 30%- 60% if possible. Be sure to empty the waste when needed to avoid it piling up too much and attracting nasty things. Airflow within the Garbage area is completely fine, as long as it doesn't affect the fungus chamber.

**Fungus chamber: Temps 23°C- 26°C/ Humidity 90%-100%**

**Foraging area: Temps 21°C- 28°C/ Humidity 50%- 70%**

**Garbage chamber: Temps 21° - 28°C/ Humidity 30%- 60%**

### **Feeding Leaf Cutters**

During the summer, it's fairly easy to feed your colony due to there being numerous types of leaves and flowers available. During the winter it can become more difficult due to the decreased availability of leaves around. In the wild, leafcutters will alternate between different types of leaves to avoid over-harvesting a leaf type so it's important to alternate the leaf type regularly to encourage this behaviour and to give them a nice variety. I'd recommend alternating types of leaves/ flowers every other day and using a minimum of 3 different types to keep them interested. **When picking leaves, it is vital to ensure none have been sprayed with harmful chemicals like fungicide or pesticide.** Feeding your colony something that has been sprayed can be lethal as the ants will be oblivious to this and bring them back to the fungus which could kill it. To avoid this, I'd recommend collecting your leaves away from potential sprayed areas and plantations. Leaf cutters will rarely take on protein in the wild so this isn't necessary to provide this. Sweet foods like honey/ sugar water can distract the ants too much and cause them to abandon the care of the fungus so I would not recommend feeding this regularly. Maybe a very small amount once a month as a little treat! leaf cutters don't need a water source as they get enough water via the leaves they cut and the humidity in the air. It's recommended to water the leaves before feeding them to the ants to clean them and moisten them to provide extra humidity. I give my leaves a quick spray with water and check them over for any living things or potential pests before feeding them to the leafcutters.

### **Summer Feedings**

Flowers (not from florists)

Evergreens (all year round)- privet, rose, bramble, elderberry etc

Trees- oak, willow, acer etc

Periwinkle

Dandelion leaves

Raspberry leaves

Fern leaves

(Typically, any leaves and flowers are worth a try as long as they haven't been sprayed)

### **Winter Alternate Feedings**

(When autumn comes, feeding becomes a little more difficult due to fewer leaves/ flowers available.)

Evergreens (all year round)- privet, rose, bramble, elderberry etc

Cooked sweet corn

Sultanas

Oats

Cabbage and Kale

Fruit and Veg- Apple, Grape, Orange, Mango, Sprouts etc

Spinach

Peanut shells

There are sites online where you can purchase organic exotic leaves (like banana leaves) all year round but make sure they're organic and safe for your colony. **If you struggle identifying leaves and flowers (like me) then there's mobile apps available for both Android and IOS that will identify leaves and flowers for you upon taking a picture. The one I use is called "Picture This". It is very useful!**

### **Arrival Of Your Colony**

When your colony arrives, it is essential to waste no time and put them into a setup with the required conditions immediately so it's recommended to have this ready before ordering. During delivery, the fungus will have broken up due to movement and this will expose visible brood and the queen when inspecting your new arrivals. This isn't an issue as they will repair the fungus within 1- 2 days. Do not be alarmed if they do not cut leaves for the first 48 hours, the ants will be hard at work on repairing the fungus and chucking away the dead parts but it's vital to give them the option of leaves in case they do want to cut. **Do not feed them any carbohydrates during this period as this will most certainly distract them during this vital time.** The fungus should appear white-ish with a darker top. The darker top is the construction area! this is the area they're adding to. A yellow fungus is a sign of dead fungus and upon arrival, the leafcutters will spend a couple of days cleaning up and repairing. It's recommended to feed them right away to get them comfortable and back into their original lifestyle as soon as possible!

Smaller colonies of leafcutters won't show much foraging activity but this is where the excitement comes in with being able to watch them grow and flourish right before your eyes!

### **Useful Tips**

- Adding springtails to your setup is a good idea as they will aid you in staying on top of cleaning.
- Placing a small container upside down, over the top of your fungus within your setup is a good idea as this creates a "Mini climate". It will be sufficiently easier for the ants to adjust this mini climate to suit their needs. Expand the container covering the fungus when the fungus has nearly filled it and be sure to cut an entrance for them to come and go as they please.
- Use minimal moveable substrate or else the ants will bury their fungus underneath and proceed to nest under the soil which means it will restrict viewing pleasure and is harder to stay on top of environmental needs.
- Use some good quality Hygrometers and Thermometers to ensure your colony is receiving the correct stable environmental conditions.
- Provide minimal space for the first few weeks is a good idea so they can establish a nesting area without becoming overwhelmed and nesting in a place you do not want them to. Feeding them and collecting garbage all within one area for the first few weeks is a good idea and then open up the other two chambers when they have settled down.

### **Questions?**

If you have any questions whatsoever then please don't hesitate to message me! I am here to help you before and after the purchase so I can ensure they do well in your care and be here to help you in the event of any setbacks.

please contact me via email or on my social medias and I will respond to you ASAP. Leaf cutter queries are my number one priority above all.

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