



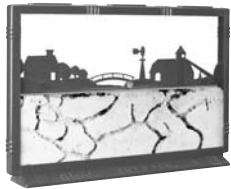
Check out these other Ant Farm® brand ant habitats from Uncle Milton!



Mini Ant Farm® live ant habitat



Giant Ant Farm® live ant habitat



Ant Farm® live ant habitat



Ant Farm Village® live ant habitat

Uncle Milton's **Ant Farm**[®] BRAND LIVE ANT HABITATS

ANT WATCHER'S MANUAL



Uncle Milton Industries, Westlake Village, CA 91362
818.707.0224 Fax: 818.707.0878 www.unclemilton.com

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MANUAL WITHOUT REORDER #0151

Caution: Never handle or touch ants directly. They can bite or sting to defend themselves.

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Ants Are Fun!

From the minute you stock your Ant Farm brand live ant habitat, a new world opens up in front of your eyes... a busy, bustling world that shows you that ants are a lot like the nicest people you know!

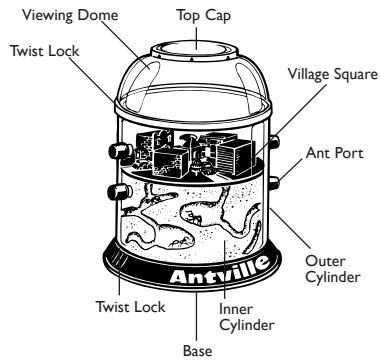
Many of the most famous people in the world have been ant watchers. Lord Avebury, a world-famous scientist, once wrote: *"When we consider the habits of ants, their social organization, their large communities, elaborate habitations, and their roadways... they have a fair claim to rank next to man in the scale of intelligence."*

The World Book Encyclopedia, which is famous for its excellent chapter on ants, says: *"The ant is one of the most gifted of all insects. Some of its ways are much like ours."*

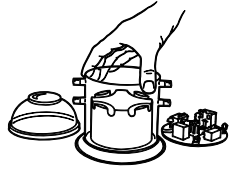
And that's true! As you study your ants, you'll find that they plan their world very much as we plan our's. They engineer their homes and highways carefully, according to intricate, skillfully thought-out design. They seem to consider artistic form as well as function in their building. The highways and tunnels in an ant's world are always arranged in smooth curves and their hills are well balanced.

This little book tells you all about your Ant Farm brand live ant habitat... how to stock the ants, how to feed them and how to take care of them. Read every word carefully, for if you treat your ants properly, they'll keep you fascinated for months and let you in on their secret world.

To Start Your Antville® habitat



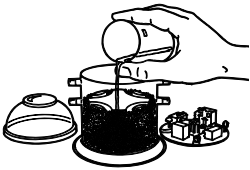
1 Remove viewing dome and outer cylinder from base by turning each counter-clockwise. Detach Village Square from inner cylinder by unscrewing gazebo counter-clockwise. Remove printed ant tunnel insert. Pull off inner cylinder and remove contents.



2 Re-insert inner cylinder into base, with locator pin in its corresponding slot. Replace outer cylinder onto base, turning it clockwise to lock.



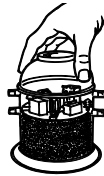
3 Cut a small corner off bag of sand with scissors. Carefully pour into space between the two cylinders, to the top rim of inner cylinder.



4 Slowly pour in 4 oz. (1/2 cup or 12cl) clear drinking water. Sand should be evenly damp but not soggy. Some water may leak out a bit at first, but don't worry, it will stop.

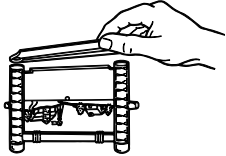
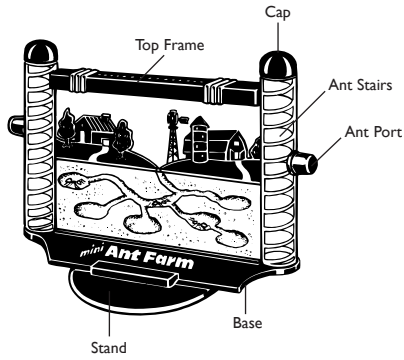


5 Clear away excess sand on the top of inner cylinder and replace Village Square, making sure it is snapped into position. Replace gazebo by screwing it in clockwise.

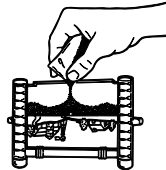


6 Replace viewing dome, turning it clockwise to lock.

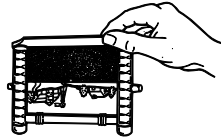
To Start Your Mini Ant Farm® habitat



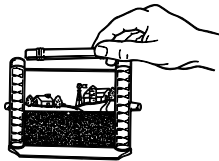
1 Turn upside-down and remove base. (Hint: Attach the base to the top end and use as a stand.) Remove printed ant tunnel inserts.



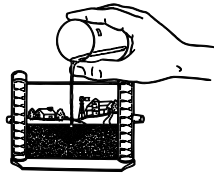
2 Cut a small corner off bag of sand with scissors. Carefully pour into lower half of Mini Ant Farm until filled.



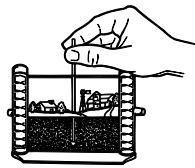
3 Replace the base. Make sure that it snaps firmly into place and that all caps and plugs are on securely.



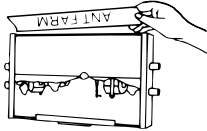
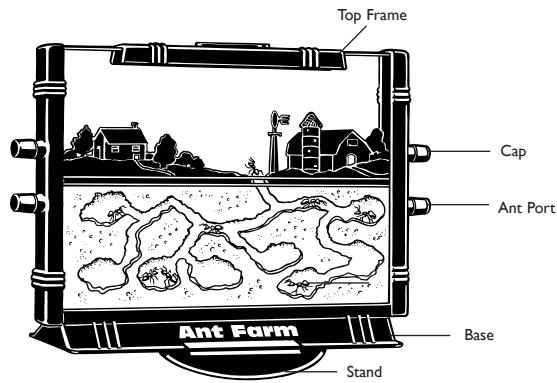
4 Turn right-side-up and remove top frame.



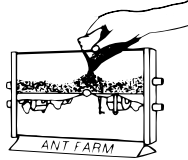
5 Slowly pour in 1 oz. (1/8 cup or 3 cl) clear drinking water. Sand should be evenly damp but not soggy.



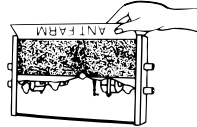
6 Using a piece of wire or thin stick, push the cotton stopper halfway into sand. This will start a tunnel. Replace top frame securely.



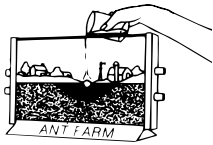
1 Turn upside-down and remove base. Attach base to the other end to help keep the habitat upright.



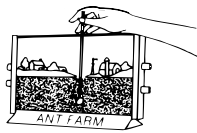
2 Cut a small corner off of bag of sand with scissors. Carefully pour sand into the habitat until lower half is filled.



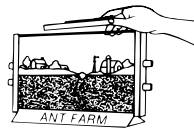
3 Replace the base. Make sure it snaps firmly in place.



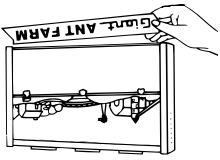
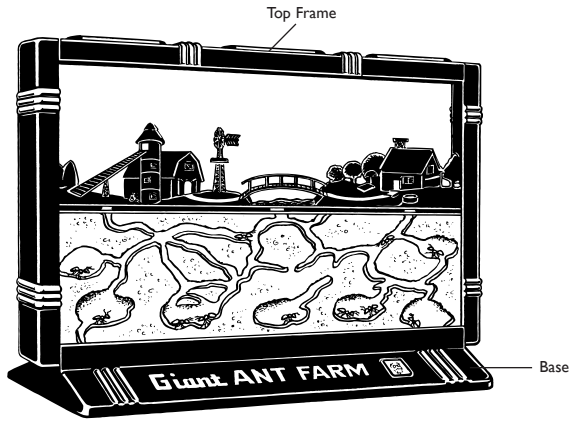
4 Turn Ant Farm right-side-up. Slowly pour in about 2 oz. (1/4 cup or 6cl) clear drinking water. Sand should be evenly damp but not soggy.



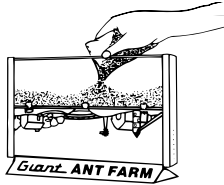
5 Using supplied stick or a piece of wire, push the cotton stopper halfway into sand. This will start a tunnel.



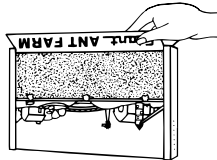
6 Replace top frame securely.



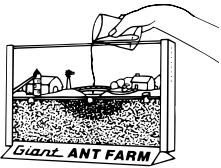
1 Turn upside-down and remove base. Attach the base to the opposite end to help keep the habitat upright.



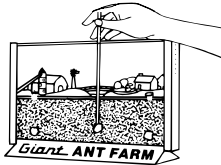
2 Cut a small corner off of bag of sand with scissors. Carefully pour sand into Giant Ant Farm® until lower half is filled.



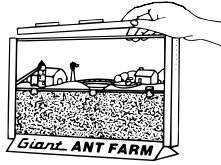
3 Replace the base. Make sure it snaps firmly in place.



4 Turn Giant Ant Farm® right-side-up. Slowly pour in about 2 oz. 6 oz. (3/4 cup or 18cl) clear drinking water. Sand should be evenly damp but not soggy.



5 Using supplied stick or a piece of wire, push the cotton stopper halfway into sand. This will start a tunnel.



6 Replace top frame securely.

Making the Connection

You can put your Ant Farm® brand habitats together. You can arrange your habitats in other ways, too. For instance, Mini Ant Farm® ant habitats can be stacked on top of each other so that ants can climb up and down the Ant Stairs directly from one farm to the other. You can also add another Antville® ant habitat, more Mini Ant Farm® ant habitats or regular Ant Farm® ant habitats together. These are available separately at your local retailer.

To connect, cut Antway travel tube to desired length and attach end tightly onto an open Antville Antport. Attach other end onto another habitat Antport. Connect second habitat in same manner. Be sure to keep all unused Antports tightly capped! If you want to stack two Mini Ant Farm® ant habitats, remove Ant Stairs plug from one and Ant Stairs caps from the other. Connect the two Ant Stairs together tightly. Slide the round stand onto the base of the lower habitat for extra stability.

To Populate Your Live Ant Habitat

With your Ant Farm® brand ant habitat you received an order form. Just fill it out and send it to us along with postage and handling. We will mail you an ample supply of harvester ants (scientific name is *Pogonomyrmex*, meaning “bearded ants,” because they appear to have little beards).

All order forms must be sent at the same time to ensure that all the ants will be from the same colony.

Normally, we mail the ants to you within two weeks after we receive your order. But sometimes we delay them because it is too hot or too cold for them. It's best for you to send for ants anytime between April through October. If you have an outdoor mailbox, don't let the ants stay in there for too long. It may be too hot or cold for them!

All the ants we send you are nonbreeding worker ants. (The government says we're not allowed to send a queen.) If you want to, you can stock your habitat with ants right out of your own neighborhood. Look for large ants that cannot go through the air holes. Let the ants crawl up onto a stick without touching them. Remove the top frame and carefully shake the ants in.

If you get your ants in the mail, remember that they have been in a tube for quite a while, and are apt to be very hungry and thirsty. So it's a good idea to drop a little water into the habitat before you populate it.

When your ants arrive, be sure to read the directions that come with them. Before you open the tube of ants, put it in the refrigerator (not the freezer) for about 15 minutes. This makes them less active and much easier to put into the habitat. They will soon “wake up” to start working.

Remove the top cap, carefully open the plastic tube of ants and shake or tap the tube to make the ants fall in. Then replace the top cap. (If you want to start Ant Farm® brand live ant habitats separately, remove the top frame and carefully squeeze the tube of ants so it fits between the clear windows. Shake or tap the ants in and replace the top frame.)

Caution: Never handle or touch ants directly. They can bite or sting to defend themselves.

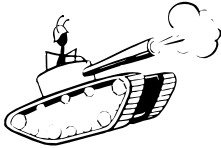
If the ants seem lazy the first few hours, don't worry. Put the habitat in a dark place overnight. They'll soon become accus-

tomed to their new home.

Don't Start a War!

While ants are very loving with one another in the same colony, they will fight with ants from another colony. So don't ever mix your ants, or you will start a war. How can you tell if ants are friends? Well, if we send you a supply of ants, they will all be from the same colony, and ants from the same colony are always friends.

If you gather your own ants, just be sure they all come from the same place. When you find a big group of ants all living and working together, they are from the same colony. Otherwise, they would be fighting!



Never mix ants from different colonies.

If we send you ants and a few are dead when you receive them, or if they die soon after, don't worry. There are more than enough ants. It's better not to have too many ants in your habitat, because the fewer there are, the more active they will be.

Ants Love to Eat

Ants eat almost anything, but remember they are tiny creatures and they eat tiny meals. So don't overfeed your ants!

See page 14 to order Uncle Milton's Ant Food along with your ants. This is a blend of protein, seeds, grains, vitamins and minerals that are good for ants. But you can give your ants

Never overfeed your ants.

food that you probably already have in your kitchen for a well-rounded diet. Once a week, remove the top cap or top frame and drop in just a tiny crumb of bread soaked in water.



You can give your ants some variety, but remember this: If you stuff too much food in your habitat, it will spoil and make it messy. This is not good for the ants.

One food ants love is fruit. It's sweet and juicy. A pinhead-size piece of apple is enough for a whole week. Other foods ants like are two or three birdseed, a tiny bit of hard-boiled egg white, or a drop of honey mixed with water.

Ants also like leaves, especially leaves from fruit trees. Take a tiny piece of a leaf, break it up and drop it in. You'll enjoy watching the ants nibbling on this.

Another favorite food among ants is meat. Drop just one dead fly or a tiny piece of hamburger into the habitat and see what happens.

They Like to Drink, Too

But again, you should not give the ants too much water. Just add a few drops of clear drinking water every other day.

You'll find a special water feeder with your Ant Farm® brand live ant



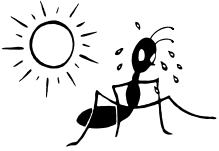
habitat. It's easy to use the feeder. Just fill a glass halfway with clear drinking water (slightly sugared if you like). Submerge the tip of the feeder in the water. Squeeze the feeder bulb and release slowly, allowing water to fill the feeder. Then open the top cap and/or top frame and add several drops of water by slowly squeezing the bulb. Be sure to keep the sand slightly moist, but not soggy. Try not to get water on any bits of food that may be inside.

You might see some droplets of water (condensation) on the inside of the windows. If this happens, stop watering for a few days.

Never leave your live ant habitat in direct sunlight or near other sources of heat, such as a lamp, stove or fireplace.

Don't Bake Your Ants!

When the sun shines directly on your live ant habitat, it turns into an oven, and the ants can die from the heat.



Don't leave them outdoors in icy weather, either. Ants can't stand extreme changes in temperature. Your room temperature of 65° to 75°F (18° to 24°C) is fine.

Keep your live ant habitat in a quiet place. Don't shake or tilt it. Treat your ants with respect.

Ants Don't Like Earthquakes!

Be kind to your ants. If you shake your live ant habitat, or turn it upside-down, you will wreck their tunnels and bridges. Your ants are very proud of their accomplishments. They take great pains building their little world, and if they are disturbed too much they will die.



Place your ant habitat on a sturdy shelf or table that won't get bumped or shaken. Quick, sudden movements will collapse the tunnels and kill the ants.

Ants Have IQs



Probably every student knows what an IQ test is. Teachers give IQ tests to discover how smart their students are. IQ stands for "intelligence quotient," and your IQ is a measure of how smart you are compared to others.

Ants are just like people in their individual IQs. Some are quite smart and some are not, and most of them are somewhere in between. Because of this, each colony has leaders and followers. You'll notice that one or two of the ants in your Ant Farm brand habitat seem to make all the decisions — where to dig, when to begin storing food, and what to do next. These are the ants with high IQs. They lead the other ants in the colony.

Sometimes one not-so-smart ant tries to go off on its own. Then the leader taps it on the head with its antenna, and the mischievous ant goes back to doing what it is supposed to do.

Ants are living proof that a big brain doesn't necessarily mean that an animal is smart.

Ants are smart, and considering the ant's size, how big can its brain be?

Ants Are Farmers

In some types of ant colonies there are farmer ants. They actually have farms! They gather tiny seeds from the fields, bring them home, and plant them underground. Soon the seeds sprout. Then the farmers bite off the green sprouts and carry the seeds out into the sun to dry. The seeds then turn into sugar... and everyone knows how ants love sugar! Other ants raise and till fields above ground. They plant small crops and keep them neat and well-tended. Then the farmers carefully harvest the seeds and store them in underground storage chambers.

There are even ants that keep cows! The "cows" they keep are really aphids — tiny insects that live on the juices of plants. Inside the aphid, these juices turn into a sweet liquid, just as the grass real cows eat turns into milk. The aphid "milk" is called honey dew. When an aphid is full of honey dew, milker ants stroke it, and it drops its honey dew for the milkers to gather up.



Other farmer ants raise mushrooms. They plant tiny bits of mushroom in their deepest, dampest caves. The bits of mushroom grow, then the ants snip them off so they won't grow too large. The ants are always very good farmers. They weed their mushroom beds, just as they weed their seed farms, to prevent growth of other sorts of plants among their crops.

Ants Are Very Sanitary

Yes, ants are very sanitary creatures. They will not tolerate litter. They always have a place somewhere that they use as a "dump site." All the trash from the colony is carefully gathered up and hauled away to this dump, usually away from the rest of the colony.



Long Live The Queen!

There is a mistaken idea that all ant colonies have only one queen each. This is not always true. There are often two or three queens to a colony, and in a very large colony, there may be as many as a dozen.

In the mating season, the young queens and male ants, called princes, crawl out into the sun. Both have wings, and they fly high into the air to mate. Then they fly back to earth. The princes have now finished their job, and they soon die. The queens, however, have scarcely begun their lives' work.

The young queen rests for a while, then she sheds her wings and explores around until she finds a good place to start a new colony. She digs a tunnel with a small chamber at the end, and there she lays her eggs. For the rest of her life, the queen will do nothing but lay eggs. The nurse ants will care for her, feed her and keep her clean.



Some eggs the queen lays will hatch other queens and some will hatch princes. Others — most of them, in fact — will hatch workers. Indeed, for the first few years of her life, the queen will hatch only workers.

An ant queen may live for as long as fifteen years. When the last queen in a colony finally dies, one of the worker ants may mysteriously become a queen!



Ants Are Altruistic

Ants are among the most altruistic creatures on earth. That means they do whatever it takes to help each other.

We can learn some wonderful lessons in good citizenship by watching the ants. First, ants respect the rights of others. They're always ready to help each other and work as a team. They share their food with each other and get along very well in their colony.

Every ant has a definite part in the work of the colony, and each ant can take as much as it needs from the community storeroom. When there is an outside threat to the colony, all the ants pitch in to defend their section.

When an ant begins to dig a tunnel, it relays the message that it needs help. Then other ants finish what they are doing and come help complete the tunnel. This is how ants accomplish such seemingly overwhelming projects as creating an entire underground colony, grain by grain!

Ants Are Industrious

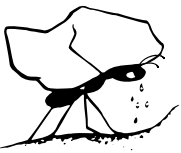
Ants are very strong for their tiny size. Some can carry loads that weigh twenty times more than they do. That would be like an average size human lifting a car!

Each ant has a special job, and each must contribute its share to the colony. There are, for example, builder ants that dig tunnels and make bridges. There are feeder ants that find and store food for the rest of the colony. There are also guard ants that protect the colony from invasion. There are nurse ants that take care of the young and the sick. Finally, there are undertaker ants that carry the dead away to a graveyard for burial.

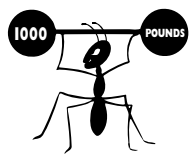
For thousands of years, philosophers and scientists have been amazed by these hard-working and intelligent creatures. Nobody knows who the first ant watcher was, but the Bible tells how Solomon — who was one of the wisest men of the ancient world — advised the people to “Go to the ant... consider her ways and be wise!” (Proverbs VI:6).

History is filled with famous ant watchers. Pliny, one of the greatest naturalists of ancient times, wrote about the wisdom of the ants. Aelian, a Greek philosopher, noted that ant colonies and ant highways were very much like the famous buildings and roads of Greece and Crete.

Ants are even found in Greek mythology. An ancient Grecian myth tells how one son of Zeus, chief of all the Greek gods, turned himself into an ant to make a good impression on the lady with whom he was in love.



So you see that ants have been highly regarded for their perseverance and teamwork for centuries. In fact, ants are among the most successful of all species. They have been around since prehistoric times and are likely to go on for many more centuries, if not forever!



Ants Are Athletes

Ants have many activities. Hard as they work, they also find plenty of time to rest and play. They have parties, and enjoy sports.

Ants go for two special kinds of athletics — soccer and wrestling. Sound crazy? Well, study your ants! Drop one tiny round birdseed into your ant habitat. Soon you'll see ants rolling the seed toward each other, or passing it from one to another just like a game of soccer!

If you see two ants in your Ant Farm brand live ant habitat appear to be fighting, they're having a wrestling match. Ants in the same colony never really fight, but they enjoy bumping each other. Sometimes they have a "no-holds-barred" match!

Often you'll see a whole group of ants gathered together. They'll tap one another on the heads with their antennae and act as though they are having a meeting or a party. Ants are very sociable creatures!

Why Watch Ants?

An Ant Farm brand live ant habitat is much more than a toy. It provides a lesson in nature study and is a good example of community cooperation. Ant Farm ant habitats can be found in classrooms throughout the world, from nursery school to college!



As you study your ants, you'll become acquainted with the different members of the colony. You'll discover which ones are smart, which ones aren't, which ones are leaders and which ones prefer to follow the leaders.

Watch them — a magnifying glass will come in handy — and you'll soon realize why you should take good care of your ants. For these little creatures work very hard, are very loyal to the others in the colony, and try to be good citizens of their little community.

Ant FAQs

Q: Do the ants get enough air in Ant Farm® brand habitats?

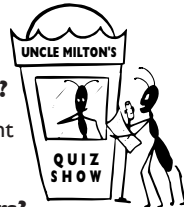
A: Yes. Your live ant habitat is scientifically constructed to provide sufficient air through tiny vents.

Q: Are there both male and female ants in a colony of workers?

A: No. All worker ants are females. The only male ants are the "princes." They mate with the queens and die soon after mating.

Q: When will I receive the ants I ordered?

A: Normally, we mail ants to you within two weeks after we receive your order form. Sometimes they are delayed because it is too cold for them. It is best to send us the order form anytime between April through October. If you have an outdoor mailbox, don't let the package stay in there for long! It may be too cold or too hot for them.



Q: Can the ants travel by mail in their small tubes without dying?

A: Yes. Our ants are packed in special containers for travel. Our experience proves that only about two or three ants out of a shipment die in transit. After all, some ants die of old age or other weakness. However, we ship you more than enough ants so that it won't matter if one or two are dead when you get them.

Q: Can I use my own ants?

A: Yes, you can. In fact, ants from your own neighborhood will thrive even better since they are already adjusted to your climate. Just be sure to find large ants that cannot go through the air holes. (See page 7.)

Q: How long do ants live?

A: A worker ant can live one to two years from birth. The ants we send are adult workers, so under proper care and conditions, they should live up to several months. However, fumes, heat or improper care can shorten their lives. The biggest causes of premature loss are overfeeding, over-watering and under-watering.

Q: Can ants "talk"?

A: Yes. They often hold meetings and you will see them all standing around in a group as if they are having a get-together! When an ant wants to attract the attention of another ant, it taps that ant on the head with its antenna. Ants communicate by chemicals, by touch, by sound, by smell and by sight.

Q: Do ants work all the time?

A: No. They work very hard, but they like to play, too, and they also rest. When they play, they bump and wrestle with each other. Sometimes two or three of them will roll a bit of grain or sand around like a soccer ball.

Q: Do ants take baths?

A: Yes. They are very clean. Watch them closely and you will see the ants rubbing their faces with their legs. They are cleaning themselves when they do that.

Q: Is Ant Farm brand live ant habitats escape-proof?

A: Yes. Your live ant habitat is designed with a self-locking device that make them escape-proof.

Q: Will the ants build hills over the farm/village scenes?

A: Yes. If they had a plain space, they would simply build plain hills. The farm/village scene gives them a more interesting place to work, and it is fun to watch them go in and out of the little buildings.

Q: Do ants really know what they are doing and why they are doing it?

A: This question has been pondered for centuries among scientists. The truth may be that they could not possibly build such well thought-out homes for themselves and regulate their lives so intelligently unless they knew what they were doing.

For Further Reading

If you want to know more about ants, you'll find many interesting books in your public

To Re-Populate Your Live Ant Habitat

Welcome your new ants to a clean home. Take your live ant habitat apart and sift the sand for dead ants, leftover food bits, etc., or use new sand. Rinse the plastic parts under water and blot dry (don't wipe — the clear parts can scratch). Replace the clean dry sand into the reassembled units and moisten as directed on pages 5 through 8.

To re-populate your live ant habitat, we offer our **Ant Farm® brand live ant habitat Re-Population Kit** at a reduced price:

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| Double Supply of Ants | \$5.00 | |
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| Water Feeder (Dropper) | \$.75 | |
| Ant Facts & Fantasies Fun Book (Games & Activities) | \$2.95 | |
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Ant Farm® brand live ant habitat Re-Population Kit (all of the above) specially priced: \$10.95

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