S2AGC#1.....1/16/97

And God Created......Ants: The Oldest Farmers in the World

"Go to the ant, thou sluggard; consider her ways, and be wise: Which having no guide, overseer, or ruler, Provideth her meat in the summer, and gathereth her food in the harvest." Proverbs 6: 6-8

With these words God's inspired writer pointed out thousands of years ago a truth that is being marveled at today. In the technologically advanced and busy world we live in hustles around, from time to time we scientists "discover" truths that reconfirm what God so plainly said. And the ant has proven time and time again this fact.

We have known for years of the marvelous complexity of ant colonies. How with unfailing energy, the colony goes about it way of life. Communicating without words what needs to be done. Each ant seemingly knowing what it is to do and then doing it. Whether scouting food sources, gathering the food, construction of new living areas, guarding the nest, tending the queens every need, or laying the eggs to sustain the colony, each ant works to accomplish it's "assigned" task.

An so when the inspired writer wrote that we should be workers, busy about our business, he could not have picked a better example than the ant. But, in recent years it has come to light that God really knew something else about some of the ants species, that we have are just learning.

"Provideth her meat in the summer, and gathereth her food in the harvest" was thought to include only the ants collection of food that God has provided in the environment around them. Not so!! In at least one species of ant, the leaf cutter ant, it is much more complex than just going out to pick up food. In involves the growing of their food. Cultivating the ground, planting the seed, tending, weeding, and then harvesting when the crop is ready.

The leaf cutter ant, includes about 190 known species, living in the tropical climates of South America. They have been known as great collectors of leaves for a long time. Searching out the best plant to collect, laying trails for all to follow and then carefully "cutting" off quarter sized hunks of leaf using their mouth parts. No small task when you consider the size of the ant and the thickness of some leaves they like. It would be like you chewing through a thick plush carpet. These pieces of leaves weighing as much as 10 times as much as the ant itself is the carried down the tree, back to the nest, and down into underground storage chambers for eating later. If this were the whole of the story we could truly say that the wisdom and design of God is seen in this creation. But that is not the half of the story.

These ants are not collecting the leaf parts for food--they are collecting them as "soil" to grow their food supply. Once back at the nest the leaf is chewed into a soft pulp and stored in chambers filled with leaf pulp. The ants then go to a piece of existing pulp and pick a seed to plant in the new "soil". As the seeds grow any unwanted "weeds" are cropped out and the ants nuture their crop. They then harvest the crop that grows as their food. The food source for these ants in a fungus, which is eaten as the shoots develop. These ants carefully "farm" the food necessary for the entire colony comprised of millions of members. Many times the larger colonies have "farms" spread

throughout the nest so food is closely available for everyone.

As a new queen sets out to start a new colony, she will take a piece of the starter pellets of fungus for the beginning of that colonies farm. It has recently discovered that all of the fungus that is found growing in the farms of all leaf cutter ants is genetically identical. Using DNA analysis, scientists have been able to show that they are the same fungus. Not just the same species, but **THE SAME INDIVIDUAL**!!

The fungus that these ants are growing today is the same one that God created on Day five of the creation week! Indeed we should consider the ant, marvel, and be wise, because of the marvelous things that God has done.