

And God Created...Ant Poison

By David Everson

God has created many, many different chemicals in the natural world that humans are attempting to copy in order to improve our way of life. This field of study is called biomimicry. The study of this science has given us medicines that many of us take or are used in medical procedures on a daily basis. It has given us insecticides, pesticides, herbicides, fungicides and just a whole array of chemical substances that have found their way into our lives. Well, we can now add another chemical to the list that scientist are looking to copy. That chemical comes from a species of ant that lives in Africa and is a poison that is so strong that it can paralyze and even kill from a distance rather than needing to be injected as most poisons do. Let's look at this ant and the unusual way that it uses this God given defense chemical in its niche in the environment.

Ants of this species live in Africa among rotting branches on the ground in cocoa-tree plantations. It preys on termites who themselves have been designed with a whole host behavioral, social, architectural and chemical defenses. Termites when attacked by invaders are more likely to stand and defend themselves and their nest rather than to run. The Creator has given these ants an offensive and defensive weapon that comes from its stinger end. The poison is emitted by a gland called the Dufour gland, near the worker ants' stingers, and seems to have three functions. The chemicals emitted by this gland not only paralyze and kill termite prey, they also attract the ant's nestmates nearby to assist them. The ants use the chemicals in the same way to repel alien ants that might attempt to raid their nest.

In order for the ants to effectively use this weapon it must back toward their prey or attackers with their stingers and chemical glands facing the opponent. Researchers looking into this chemical have discovered that it is most effective on the termites that the ants prey on, but does have a deterrent affect on other ant species.

Researchers looking into the ant use of this poison made these comments about the ants poison and behavior. "When an ant detected a termite, it approached with its abdominal tip (containing its chemical-laden stinger) pointed toward the prey. By raising its stinger the ants create tiny particles of the toxins, which fly through the air. The chemicals their stingers emit seemed to draw their nestmates to help them take down the termite invader. As expected, the termite boldly stood its ground; but after about 10 minutes it fell down and rolled onto its back, its legs batting the air, paralyzed." This poison is effective over a distance of up to half and inch which a long way for a deadly substance to act in the animal kingdom.

So in the ant again we see the wisdom of the Creator the envy of chemists who would like to improve our ability to deter and kill the termite and ant species that do our structures and crops so much damage. Let's always remember these ants everything else on earth were created for His pleasure and He described their creation as "very good".
Genesis 1:31