Ants that produce antibiotics

Some ants and fungi species lead a symbiotic life. In their colonies, ants raise specific fungus for food and to ensure the continuity of their generations.

Scientists at the University of East Anglia have shown that fungus-farming ants are using multiple antibiotics as weed killers to maintain their fungus gardens. Research led by Dr. Matt Hutchings shows that ants use the antibiotics to inhibit the growth of unwanted fungi and bacteria in their fungus cultures which they use to feed their larvae and queen.

These antibiotics are produced by actinomycete bacteria that live on the ants in a mutual symbiosis.

Although these ants have been studied for more than 100 years this is the first demonstration that a



single ant colony uses multiple antibiotics and is reminiscent of the use of multidrug therapy to treat infections in humans.

The work, which was funded by the UK Medical Research Council, has also identified a new antibiotic that could be used to treat fungal infections.

Dr. Hutchings said: "We found a new antifungal compound that is related to a clinically important antifungal named nystatin so we're excited about the potential of these ants and other insects to provide us with new antibiotics for medical use.

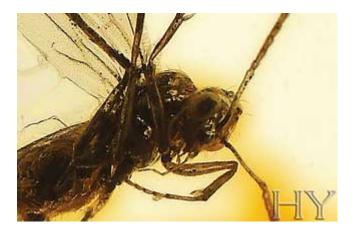
"It's also very exciting that ants not only engaged in agriculture before humans but also combination therapy with natural antibiotics. Humans are just starting to realise that this is one way to slow down the rise of drug resistant bacteria - the so called superbugs."

The statement of Dr. Hutching, "Humans are just starting to realise that.." is very significant. Even human beings, upon whom Allah granted the ability to think and reason, have recently learned the existence of such an antibiotic from a tiny ant who acquired the knowledge of this compound for millions of years.

In the fossil records, our Lord shows us that ants have remained the same, with no change, for millions of years. And for millions of years these ants have maintained fungus gardens and produced antibiotics to inhibit the growth of fungi and bacteria in their fungus.



50 million year old ant fossil- Polish ambers



In Surah Hud verse 56 our Lord says, "There is no creature He does not hold by the forelock. My Lord is on a Straight Path." and relates His authority and might on every living being. And we, witnessing these glorious signs of creation in everywhere in nature, remember the Omnipotence of Allah and glorify Him.

Reference:

http://esciencenews.com/articles/2010/08/26/ants.found.use.multiple.antibiotics.weed.killers

https://www.harunyahya.info/en/articles/ants-that-produce-antibiotics