

Pathogens

These are disease causing agents, viruses, fungi and bacteria. They are usually minute organisms.

Weeds

Plants that create aesthetic problems are defined as weeds. In agriculture, weeds are defined as plants that compete for water, nutrient, light and space with cultivated plants. They may also be plants that contaminate harvest and harbour other pests.

Vertebrates

Several vertebrates can and have attained pest status in Jamaica. These are birds, rodents, mongoose, cows and man.

Insects

Insects are the major organisms that have attained pest status. Insects have been around for about 350 million years and were the first small animals to inhabit the land. They are the most successful animals on earth. Fossil records suggest that early insects resembled the dragonfly. From this early form evolved variations in the wings and the ability to fold the wings. This allowed the insect to move through vegetation and soil. Complete metamorphosis also evolved.

Pest outbreaks

A pest outbreak is usually a result of an ecological imbalance. To manage a pest, there must be knowledge and understanding of the factors contributing to the imbalance. Managing the pest population should focus on managing the factors that influence the dynamism of the pest population.

Pest Outbreaks – Human Response

Post World War II attempts by humans to deal with pest outbreaks focused on eradication. With little or no success in eradicating pests, the focus shifted to control. Both these approaches employed the use of pesticides and more pesticides. Unfortunately, the first response to most pest problem in Jamaica is still the use of pesticides. As a result, Jamaica imports approximately 700,000 kg of pesticides/year. Initially, the pest populations were suppressed, but then there are serious ecological and environmental backlashes.

Evolution of pests

Man's early interaction with arthropods as pests involved parasitic arthropods. As man became more advanced and began invading new habitats they came into greater contact with insect species. The development of agricultural systems (cultivation of plants and domestication of animals) encouraged some organism while displacing others. The above reduced biological diversity and hastened the evolution of pest organisms.