

Oriental cockroach

The female produces 5 egg capsules at monthly intervals. The thick-walled resistant capsules, 12mm in length, each contain up to 16 eggs and are cemented to the substrate or dropped in the vicinity of a food supply. They may then be covered over with debris. Nymphs emerge 6-12 weeks later and progress through 7-10 moults before reaching maturity, a process which takes 10 months-2 years depending upon temperature and food supply. With each successive moult the wings, antennae and cerci develop and the nymph becomes progressively more like the adult. Adults live approximately 4.5 months at 25°C. The slow proliferation of *B. orientalis* will limit its success where reasonable standards of hygiene exist.

German Cockroach

The female of this species produces 4-8 egg capsules at approximately 1 month intervals. Each thick-walled resistant capsule is 6mm long and contains up to 30 eggs, but unlike *B. orientalis*, the female carries the capsule until just before the eggs hatch - some 2.5-4 weeks later. Efforts are made to conceal the capsules near a food source, where the nymphs will hatch and pass through 5-7 moults before reaching maturity. At a temperature of 25°C maturity is reached in 3.5 months, but this time can be profoundly influenced by temperature. Adults live approximately 8.5 months at 25°C. The German cockroach is particularly successful for the following reasons: 1. A large number of eggs per capsule; 2. The female protects the egg capsule, by carrying it until just before hatching; 3. Short development period to hatching and maturity; 4. Small size, therefore readily conceals itself.

Cockroaches are potential vectors of diseases such as dysentery, gastroenteritis, typhoid and poliomyelitis. Their diet is omnivorous and includes fermenting substances, soiled septic dressings, hair, leather, parchment, wallpaper, faeces and food for human consumption. The latter may be contaminated either by the mechanical transfer of causative agents of disease from the insect's body, or by transmission in the faeces. An outbreak of food poisoning in a Brussels hospital subsided immediately an infestation of *B. germanica* was controlled.

Cockroaches and their faeces may cause allergic reactions especially amongst sensitive individuals eg asthmatics. Exposure may result from ingestion or through the inhalation of materials derived from cockroaches in airborne dust. In addition, food may be tainted with the characteristic smell of the cockroach, which is produced by faeces and salivary/abdominal gland secretions, or by the dead insects.

