

D-51: Aphids on vegetables

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Aphids (Homoptera: Aphididae) as plant sap feeders and viral vectors affect the growth and yield of vegetable crops. The aphid species that infest

vegetables, natural enemies associated with aphids and the incidence of viral infections among vegetables that harbour aphids, were studied.

Aphids were collected from 10 vegetable growing areas; Bandarawela, Bathalagoda, Kundasale, Maha Illuppallama; Makandura, Mathurata, Nuwara Eliya, Pallekale, Peradeniya and Ragala, representing different agroecological regions and vegetable types. Predators and parasitoids associated with aphid colonies were collected and identified.

Fifteen species of aphids belonging to 10 genera were collected from 35 vegetables species. Of these, the polyphagous, *Aphis craccivora* Koch was present on 12 hosts, *A. gossypii* Glover on 10 hosts, *A. spiraecola* Patch on 6 hosts and *Myzus persicae* (Sulzer) on 7 hosts. *Myzaphis rosarum* (Kaltenbach) and *Dysaphis rarataegi* (Kaltenbach) were restricted to carrots alone. The latter 2 species had not been recorded from Sri Lanka previously.

Of the collected aphid species, 9 were potential viral vectors. Seven species of vegetables harbouring these aphids showed signs of viral infection. Five weed species growing around vegetable plots, harboured *A. gossypii* and *M. persicae*.

Two species of predatory Coccinellides and one species of lacewings were collected from colonies of *A. gossypii* on 3 vegetable species. Parasitized aphid mummies were present in colonies of *M. persicae* on 2 vegetable species.

Except for the polyphagous aphid species, host-specific aphids and their natural enemies were poorly represented on vegetables. This may be due to the extensive use of insecticides on vegetable crops.