

lenticular side pieces by distinct sutures. On the ventral surface of the abdomen, underneath the operculum, is a pair of spines, one on each side, about equal in length to those which arise at the anterior end of the prostomial plate. These spines extend backward, reaching nearly to the caudal margin of the body. The segmentation below is not as distinct as on the dorsal surface. Each antenna arises on a line with the coxæ of the legs of its respective side of the body and about opposite the anterior margin of the prostomial plate. They consist of four segments: the basal segment is short and stout; the second segment is twice as long as the first and more slender, reaching about to the margin of the body when the antennæ are directed outward; the third segment is very short and with two or three apical spines; the fourth segment is twice as long as the second, bearing a small spine at about two-thirds the distance toward the tip, and another larger one at the tip.

The colour of the larva is pale green, semitransparent, with two internal orange-yellow bodies of irregular rounded form, situated one on each side in the basal abdominal region.

The length in this instar varies from .29 to .35 mm.; the greatest width, from .16 to .18 mm.

The young larva is capable of crawling as soon as it emerges from the egg. It may crawl a short distance before settling down, or it may settle down quite near its place of birth. It is seldom able to crawl over the larger ribs of a leaflet, being prevented by the thick hairs of the leaf. After settling down it soon loses the use of its legs, and in the course of a day or two the lateral wax secretion appears. The first moult takes place in about five or six days. Lateral growth of the body between the moults is not appreciable, increase in size seeming to result almost entirely from growth in thickness. This is true of all the immature stages. Preliminary to moulting, the skin appears to split around the anterior margin of the body. It is then gradually moved back, aided by up-and-down movements of the abdomen, and usually drops off entirely, sometimes, however, remaining attached to the leaf. Moulting appears to be a slow process, two or three hours or a whole day intervening before the insect is entirely freed from its moulted skin. As each portion of the body becomes free from the skin, it seemingly flows out over the surface of the leaf, and immediately assumes the form and horizontal dimensions which continue throughout the instar.