

## Weevil Damage in Carrot and Parsnip Crops

A number of samples have been received in 2013 displaying internal tunnelling and external feeding damage on both carrots (Image 1) and parsnips (Image 3). On several occasions weevil larvae (Image 2) have been recovered from these feeding sites. To date the weevil species responsible for this damage have not been identified. Weevil species are extremely similar in the larval stage of development. Larvae are currently being reared to adulthood to facilitate identification.



Image 1. Suspected weevil feeding damage



Image 2. Weevil larva recovered from carrot

Internationally there are two species of weevil which are economically important pest species of carrots, the carrot weevil (*Listronotus oregonensis*) which has a host range from Nova Scotia to Manitoba in Canada and Iowa to Louisiana in the US and the Texas carrot weevil (*Listronotus texanus*) in the southern United States. Neither of these species has been reported outside of North America. The feeding behaviour of the weevil species recovered is significantly different to that reported as being characteristic of the North American carrot weevils.



Image 3. Suspected weevil feeding damage



Image 4. Weevil larva recovered from carrot

The feeding damage can be similar to that of Carrot Fly (*Psila rasae*) larva, but the weevil feeding damage tends to be deeper into the carrot surface and wider also

(Image 5). A build up of insect 'frass' (waste) is also usually observed (Image 5, Red Arrow). Unlike the American weevils (*L. oregonensis* & *L. texanus*) where most of the feeding damage and tunnelling is reported to occur on the upper third of the carrot, damage observed in Irish fields to date has been more obvious on the lower portions of the vegetables.



Image 5. Feeding Damage on Carrot



Image 6. Larva recovered at a depth of 22cm

As this damage and associated weevil has been observed at two separate sites it is necessary to ascertain the extent of the habitat of this weevil. If growers have observed damage similar to that shown or have any concerns they can contact their local Teagasc Horticultural Advisor or contact Dr. Michael Gaffney directly (Contact Details Below). Crops which could be affected include Carrot, Parsnip, Celery, Dill, Turnip and Parsley.

Dr. Michael Gaffney,  
Horticulture Researcher,  
Teagasc, Ashtown Food Research Centre,  
Dublin 15  
[Michael.Gaffney@Teagasc.ie](mailto:Michael.Gaffney@Teagasc.ie)  
0871205840

Mr Stephen Alexander,  
Horticulture Advisor,  
Teagasc, Kinsealy,  
Dublin 17  
0876273888

Mr. Andy Whelton,  
Horticulture Advisor,  
Teagasc Killarney  
Co. Kerry  
0877848065

Mr. Gerry Walsh  
Horticulture Advisor,  
Teagasc Enniscorthy,  
Co. Wexford  
0876457106