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CORPORATION

PEANUTS

SECTION 7

INSECT CONTROL

TYPES OF INSECT PESTS | GROWTH STAGES | DAMAGE CAUSED BY PESTS
| MANAGEMENT OF INSECT PESTS | MAJOR INSECT PESTS OF PEANUTS

VIDEOS

Insect management



Insect control

Various insect pests attack peanuts; however, compared with horticultural crops and cotton, insects are not considered a major problem for peanuts. Regular scouting for insect pests is still warranted. Growers should budget on at least one spray for *Helicoverpa*.

Peanut crops in cotton- and lucerne-growing areas may have more aboveground pests than crops that are more isolated. Soil pests such as white grubs and whitefringed weevil (*Graphognathus leucomela*) are significant pests in established peanut-growing areas.

In traditional peanut-growing areas, foliar insect pests have not been a major problem. However, this has changed recently as peanuts have moved into new production areas, especially areas that have predominantly grown cotton or horticultural.¹

7.1 Types of insect pests

Foliage feeders

The main foliage feeders tend to be *Helicoverpa* sp. and cluster caterpillar (*Spodoptera* sp.). Large numbers of these larvae (>6 larvae/m) can be damaging when the plants are very small; control measures may be warranted.

Growers also need to check crops carefully during the main flowering and pegging period. These insects will attack both flowers and pegs and can reduce yield potential. Control may be warranted where there are >2 larvae/m of row.

In North Queensland, redshouldered leaf beetle (*Monolepta australis*) can be a regional pest of significance. They have a short life cycle, and two populations generally occur throughout the season. Expect heaviest pressure in paddocks adjacent to avocados and other tree crops. A preventative approach to management is recommended; manage the pest in the tree crop (where many registered control options exist). Effective insecticide options in peanuts are few; however, for latest information please consult your agronomist.

Sucking insects

Several sucking insects will attack peanuts and are often responsible for the spread of viruses. The most commonly observed are the vegetable jassid and the lucerne leafhopper. These can attack the crop at any stage and often build up to huge numbers. Growers often overlook these pests because they are not easily seen, but in large numbers, they can cause significant crop damage. If ≥25% of the crop's leaves have small yellow spots or stippling, and/or the leaves are turning yellow at the tips and margins, then chemical control measures may be warranted.

Thrips, mirids and mites can also be a problem in some areas. Regular scouting of the crop is essential to determine whether control measures are warranted.²

1 PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

2 G Wright, L Wieck, P Harden (2015) Peanut production guide, August 2015. Peanut Company of Australia, <http://www.pca.com.au/wp-content/uploads/2016/11/PWH-Peanut-Production-Guide-2015.pdf>



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7.2 Growth stages

7.2.1 Pre-emergence

Pest damage to peanuts can start as soon as the seed is planted, but this is not common. Where pre-emergence damage occurs, it is usually from larvae of the whitefringed weevil. False wireworm larvae, whitefringed weevil, large white grubs ('canegrubs') and mole crickets all can occasionally damage germinating seeds.

7.2.2 Emergence to first flowering

During vegetative growth, damage is mainly to foliage by either leaf-chewing or sap-feeding pests. Sap-feeding pests include lucerne and vegetable leafhoppers (jassids), peanut mites and cowpea aphids, and may occur any time after crop emergence.

Peanut mites can damage peanuts during prolonged dry periods (Photo 1). The mite disappears with rain and the plant outgrows the damage.

The two-spotted mite is not usually a pest of peanuts. However, if peanuts are sprayed heavily with non-selective (hard) pesticides, or are grown in areas where adjacent crops are heavily sprayed, then two-spotted mite infestations may occur. In the vegetative stage, control may be required if the mite is still present and >10 plants out of 30 have >30% reduction in leaf area.

Leaf-chewing pests that affect peanuts include *Helicoverpa* and the cluster caterpillar. Redshouldered leaf beetle occasionally damage isolated patches of a crop.

Almost every peanut crop will contain some *Helicoverpa* larvae. Control is rarely needed, as peanuts are very tolerant of defoliation. Naturally occurring outbreaks of Nuclear polyhedrosis virus (NPV) will often kill larvae before they damage the crop.

Cluster caterpillars are less common than *Helicoverpa* and rarely need control.

In North Queensland, whitefringed weevils can cause severe damage. Larvae chew the taproots, which can cause plants to die, and adults can defoliate young plants when present in large numbers.

The larvae of the peanut white grub, *Heteronyx piceus*, and related species can inflict damage similar to that caused by whitefringed weevil larvae, but this seldom results in plant death. Adult peanut whitegrubs can cause severe defoliation in young plants.³



Photo 1: Peanut mites cause damage like this only in dry years.

³ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.2.3 Flowering, pegging and podfill

Sap-sucking pests present during the vegetative stage can continue into flowering, pegging and podfill. Mirids may also affect the crop, feeding on buds and flowers and causing them to abort.

Helicoverpa, usually *H. armigera*, sometimes feed on flowers and pegs. If significant numbers of flowers and pegs are being chewed off, some control may be needed. Cluster caterpillars also attack peanut pegs. This pest is more common in coastal regions and the tropics.

Root-chewing larvae of whitefringed weevil and whitegrubs can cause significant plant losses and pod damage.

Heavy infestations silverleaf whitefly (SLW, *Bemisia tabaci*) at flowering and podding can greatly reduce plant vigour and yield. However, peanuts are not favoured hosts for this exotic pest, and populations in most years are usually low.

Western flower thrips (*Frankliniella occidentalis*) are another exotic pest and a potential threat to peanuts, mainly because they transmit Tomato spotted wilt virus (TSWV). Although TSWV infections are often initiated by western flower thrips feeding during the vegetative stage, severe TSWV symptoms are usually not manifested until flowering. However, the incidence of TSWV in Australian peanuts has not yet reached the damaging levels reported in other crops or in peanut crops overseas.⁴

7.2.4 Mature crops

The lucerne seed web moth (*Etiella*) may leave holes in pods and appear close to harvest, particularly during dry seasons. Damage is less common in irrigated crops and Runner types seem most affected.⁵

7.3 Damage caused by pests

Soil insects and pod damage

In some parts of Queensland, whitefringed weevils can cause severe damage. Larvae of the weevil attack the taproot of the plant. This may cause direct death of the plant or indirectly lead to its demise by providing an entry site for diseases such as *Cylindrocladium* black rot (CBR). The larvae will also chew pegs and developing pods. The best strategy for managing this pest appears to be to control the adults before they lay eggs.

Various whitegrubs and canegrubs will also feed on roots, pegs and developing pods. Mechanical cultivation can be useful in controlling some of these pests and some soil-applied insecticides may also be warranted.

Etiella moths and larvae may be common on some of the sandier soil types and are often especially active against the Runner types of peanuts. The adult moth lays its eggs on the peanut plant. The larvae hatch and move down the plant into the soil to feed on the pods. Growers should check crops at least 1 month prior to harvest. In extreme cases, the crop may have to be dug early. Irrigation is the best form of defence against this pest.⁶

7.4 Management of insect pests

In weeks 2 and 3 during crop establishment, check for soil and foliar insects, especially *Helicoverpa* and cutworms (*Agrotis* sp.).

4 PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

5 PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

6 G Wright, L Wieck, P Harden (2015) Peanut production guide, August 2015. Peanut Company of Australia, <http://www.pca.com.au/wp-content/uploads/2016/11/PWH-Peanut-Production-Guide-2015.pdf>



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[Australian Pesticides and Veterinary Medicines Authority.](#)

In weeks 4–7 during flowering, check for foliar insects, especially jassids, leafhoppers, mites and *Helicoverpa*. Continue to scout for foliar insects during weeks 8 and 9, when pegging occurs, and through to canopy closure and pod-setting in weeks 12 and 13.

In weeks 14 and 15 when pod-filling is under way, check for insects, especially armyworms (*Spodoptera* sp.), which stay at or just below ground level during the day but feed on pegs during the night.⁷

Weekly trap catch data for *H. punctigera* and *H. armigera* from locations across all states can now be [viewed online](#). The adjustable bar below the map allows selection of a time period (1 wk, 2 wks, 1 mth, etc). <https://jamesmaino.shinyapps.io/MothTrapVis/>

7.5 Major insect pests of peanuts

7.5.1 Aphids (Aphididae)

Importance: Cowpea aphids (*Aphis craccivora*) are common (Photo 2). They are not considered a pest; however, they are vectors of the Peanut mottle virus (PMV). Peanut mottle virus is usually not a problem in peanuts, but can be a major concern in navy beans growing nearby.

Registered chemical: Check current registrations on the [APVMA](#) website.⁸



Photo 2: Cowpea aphids.

⁷ PCA. Peanut production season plan. Peanut Company of Australia, <http://www.pca.com.au/wp-content/uploads/2016/11/checklist.pdf>

⁸ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

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7.5.2 Cluster caterpillar (*Spodoptera litura*)

Importance: Cluster caterpillars (Photo 3) are significant but infrequent in traditional growing regions such as the South Burnett. They are more abundant in coastal regions and the tropics, where serious damage has been reported.

Damage: Cluster caterpillars are foliage and peg feeders. Young larvae feed in groups, leaving the bigger veins. Larger larvae are solitary, chewing large pieces of leaf and attacking and severing pegs, causing pod death.

Action level: Sample weekly during the vegetative stage and from flowering to the end of podfill. Examine five plants at six widely spaced locations (i.e. 30 plants).

Control: Rarely a problem if insecticides are used to control *Helicoverpa*.⁹

Registered chemical: Check current registrations on the [APVMA](#) website.



Photo 3: Cluster caterpillar (top left), eggs (top right), and moth (bottom).

⁹ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.3 Cutworms (*Agrotis* spp.)

Importance: Minor and sporadic.

Damage: Seedlings are chewed off around ground level (Photo 4). Damage is usually patchy and tends to progress outwards from the initial damage site.

Action level: Not determined. Check presence with germinating seed baits.

Registered chemical: Check current registrations on the [APVMA](http://www.apvma.gov.au) website.¹⁰



Photo 4: *Cutworms.*

¹⁰ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf



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Mungbean and soybean insects

7.5.4 Lucerne seed web moth (*Etiella behrii*)

Importance: Major but sporadic. Can be severe in drought years. Infestations are worse on lighter, sandier soils and in dry seasons. Crops of variety Florunner tend to be more affected by *Etiella* than other varieties. Can also be a problem in irrigated crops when soils are drying down before harvest. *Etiella* damage is a major risk factor for aflatoxin.

Damage: In dry seasons when soils are dry and cracked, newly hatched larvae are able to reach the underground pods (Photo 5). Larvae bore straight into pods and feed within them until ready to pupate. Larvae then emerge from the pods and sometimes produce webbing around the pods. Note that other, less damaging caterpillars (e.g. *Endotricha* sp.) commonly make webbing at the base of plants.

Etiella exit holes are 2–3 mm in diameter and these allow the aflatoxin-producing fungus *Aspergillus flavus* to enter pods. Aflatoxin levels in *Etiella*-damaged pods can be >4 times greater than in undamaged pods containing aflatoxin. *Etiella* damage is not obvious until harvest. *Etiella* larvae are frequently still inside pods at harvest and can be driven out in their thousands when pods are dried postharvest.

Action level: If it has been a dry season, check the crop regularly, starting at least 1 month prior to harvest. Sample five plants at six positions all over the paddock (i.e. 30 plants). If pods have much webbing and frass, pull early and dry. Light traps are being trialled to monitor *Etiella* moth activity and predict pod damage.



Photo 5: Left: lucerne seed web moth—a problem in dry seasons, particularly on light sandy soils. Right: the blue green larvae tunnel into pods and destroy the kernel. It is difficult to separate damaged and sound pods at harvest.

Registered chemical: None registered.

Cultural control: Pull crop early and dry. Eliminate alternative hosts such as *Sesbania* and rattlepod (*Crotolaria* spp.).¹¹

¹¹ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.5 False wireworms (*Gonocephalum* spp. and *Pterohelaeus* spp.)

Importance: Minor and sporadic.

Damage: Larvae feed on decaying vegetable matter, crop residues in the soil and newly germinated seed (Photo 6). Both the seed and the growing point of the plant are damaged, resulting in patchy stands. During summer, adults ring-bark or cut off young plants at or just below ground level.

Action level: Not determined. Check presence with germinating seed baits.

Control: Seed treatment will reduce but not eliminate the problem.

Registered chemical: None registered.¹²



Photo 6: False wireworm.

¹² PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.6 *Helicoverpa punctigera* and *H. armigera*

Importance: Minor and frequent. Can cause damage from emergence to pegging.

Damage: Most crops will contain some *Helicoverpa* larvae (Photo 7). *Heliothis punctigera* mainly attacks the leaves and growing points whereas *H. armigera* usually damages flowers and pegs. Peanuts are tolerant of defoliation, and even quite high populations (e.g. 5 larvae/m²) have little impact on yield in well-grown crops. However, severe defoliation or flower and peg damage during podding can reduce crop potential. Usually, naturally occurring outbreaks of NPV kill larvae before they damage the crop.

Action level: Sample weekly during vegetative, flowering and pegging stages. Sample five 1-m lengths of row at six positions across the paddock. During the vegetative stage, spray if there are >12 larvae/m of row. During flowering and pegging stages, spray if >3–5 larvae/m are present and larvae are feeding on flowers and pegs.

Registered chemical: Check current registrations on the [APVMA](http://www.apvma.gov.au) website.

Biological control: NPV products, e.g. VIVUS.¹³



Photo 7: *Helicoverpa* larvae mainly eat leaves, but can chew flowers and pegs.

¹³ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.7 Lucerne leafhopper (*Austroasca alfalfae*)

Importance: Minor to significant and frequent. Lucerne leafhopper is yellow-green and more damaging than the emerald green or blue-green vegetable leafhopper. This pest is more common in tropical regions.

Damage: Nymphs and adults feed on the sap-conducting system and inject a toxin. Leaves turn yellow and die from the tip (hopper burn) and plant growth is stunted (Photo 8). Damage is worse when plants are stressed.

Action level: Sample weekly during the vegetative, flowering and pegging stages (30 leaves/week). Sample five leaves halfway up the plant at six positions across the paddock. Spray if >7 of 30 leaves have yellowing or burn in the vegetative crop stage.

Registered chemical: Check current registrations on the [APVMA](http://www.apvma.gov.au) website.¹⁴



Photo 8: Top: lucerne leafhopper. Bottom: 'hopper burn', typical yellow leaf tips caused by lucerne leafhoppers.

¹⁴ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.8 Vegetable leafhopper (*Austroasca viridigrisea*)

Importance: Minor and frequent. Vegetable leafhopper is emerald (blue-green) in colour and less damaging than the yellow-green lucerne leafhopper (Photo 9). It is very common in most peanut crops.

Damage: Nymphs and adults suck the contents of leaf cells. The leaf cell dies, leaving a white spot. Adjacent spots form the stipple pattern characteristic of vegetable jassid damage. Damage is worse when plants are stressed.

Action level: Usually does not need control, except where there are extremely high populations during hot, dry weather. Sample weekly during vegetative, flowering and pegging stages.

Registered chemical: Check current registrations on the [APVMA](http://www.apvma.gov.au) website.¹⁵



Photo 9: Vegetable leafhopper.

¹⁵ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

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7.5.9 Pineapple mealybug (*Dysmicoccus neobrevipes*)

Importance: Minor and sporadic. Its importance may increase in irrigated crops.

Damage: Infested plants are stunted. Nuts often collapse and assume a blackish colour when the waxy, fluffy, white mealybugs are present in large numbers (Photo 10). Damage is usually in poorly drained sites.

Action level: None determined.

Registered chemical: No registrations. Pesticide control is not feasible for this pest.

Cultural control: Avoid planting in poorly drained areas.¹⁶



Photo 10: Mealybug.

16 PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.10 Mirids (Miridae), green and brown (*Creontiades* sp.)

Importance: Widespread but probably not as damaging as in mungbeans. Peanuts in lucerne-growing areas are at most risk.

Damage: Mirids infesting caged peanut plants have been shown to reduce the number of pods produced (Photo 11). Mirid attack may result in uneven crop maturity.

Action level: A provisional threshold of 3–4 mirids/m² has been set for peanuts.

Registered chemical: None registered.¹⁷



Photo 11: *Mirids are widespread and suspected of damaging peanuts in the field.*

¹⁷ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.11 Peanut mite (*Paraplonobia* spp.)

Importance: Minor and infrequent; should not be a problem in overhead or spray-irrigated crops.

Damage: A general yellowing and silvering of the leaves will show up in patches of the crop during prolonged dry periods. As damage becomes more severe, lower leaves are shed and plants die. Mites jump off the plant at the least disturbance (even a shadow across a leaf), so care is needed to find the relatively large, dark green–black mites (0.5 mm long) on the under-surface of the lower leaves (Photo 12).

The mites disappear after rain and plants usually outgrow the damage.

Action level: Sample weekly if the weather has been dry for a prolonged period. Only spray the patches with obvious silvering if rain is not expected.

Registered chemical: Check current registrations on the [APVMA](#) website.¹⁸



Photo 12: Peanut mite damage to a leaf.

¹⁸ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.12 Two-spotted mite (*Tetranychus urticae*)

Importance: Minor and sporadic. A problem where peanuts grow next to cotton.

Damage: Sucking of the tissue causes leaf mottling and yellowing. In severe cases, leaves will die (Photo 13).

Action level: Not determined.

Registered chemical: Check current registrations on the [APVMA](#) website.¹⁹



Photo 13: *Two-spotted mites are usually a problem only in cotton districts.*

¹⁹ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.13 Redshouldered leaf beetle (*Monolepta australis*)

Importance: Minor and sporadic. Most common in coastal regions where the larvae feed on sugarcane roots.

Damage: Adult swarms feed on foliage and flowers. Overall damage in inland regions is generally minor; adults usually occur in isolated patches in a crop (Photo 14). However, very high populations across whole crops have caused major damage in coastal regions, shredding leaves and flowers. Larval damage to roots is not significant, as peanuts are not a preferred larval host.

Action level: Not determined.

Registered chemical: None registered.²⁰



Photo 14: Redshouldered leaf beetle.

²⁰ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf



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7.5.14 Silverleaf whitefly (*Bemisia tabaci*, type B)

Importance: Potentially a serious pest in coastal and tropical regions (Photo 15). Heavy SLW populations severely damaged many peanut crops in central Queensland in 2002. However, this was an exceptionally bad season, and in most seasons, SLW is not a problem because peanuts are not a preferred host.

Damage: Severe SLW damage can reduce plant vigour and yield. Severe SLW infestations in young plants can stunt plant growth and greatly reduce a crop’s yield potential. Later infestations at flowering and podding can reduce podset and pod yield. Generally, the impact of SLW is more severe in drought-stressed crops.

Action level: Not determined.

Registered chemical: No pesticides registered for SLW management in peanuts. In the long term, sole reliance on pesticides for SLW is not sustainable and the integrate pest management (IPM)-friendly options available in cotton are too expensive for peanuts. Avoid the use of non-selective pesticides against other pests, to help conserve SLW parasites.

Cultural control: Avoid planting peanuts close to earlier maturing susceptible hosts such as cotton, cucurbits and sweet potatoes.

Biological control: SLW are parasitised by a number of small native and introduced wasps. Ladybirds and hoverfly larvae have also predated on SLW. Therefore, use of non-selective pesticides should be avoided.²¹



Photo 15: Silverleaf whitefly.

²¹ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

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7.5.15 Storage insects

Importance: Widespread and significant. Indian mealmoth (*Plodia interpunctella*) and the tropical warehouse moth (*Ephestia cautella*) are the most common. Larvae of the lucerne seed web moth (*Etiella behrii*) can be delivered to storage depots inside the pod but do not re-infest in storage.

Damage: Storage moth larvae damage kernels, particularly at high moisture levels (Photo 16).

Action level: Control measures should be undertaken at the first sign of damage.

Cultural control: Adopt good hygiene by cleaning threshers, bins, elevators and around sheds. Keep harvested crop <12% moisture content on nut-in-shell basis and keep cool.

Check with peanut shellers before using any stored grain insecticides on peanuts.²²

Check current registrations on the [APVMA](http://www.apvma.gov.au) website.



Photo 16: Insect damage to stored kernels.

²² PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.16 Thrips (Thysanoptera)

Importance: Most damage by thrips is minor and infrequent and should not be a problem in irrigated crops (Photo 17). However, the recently introduced western flower thrips (*Frankliniella occidentalis*) is a significant threat to peanuts. Since the arrival of western flower thrips in Australia, there has been a dramatic increase in the incidence of TSWV and *Capsicum chlorosis virus* in many other susceptible crops. TSWV has severely damaged peanut crops in many overseas countries, including the USA.

Damage: Thrips damage is characterised by a general yellowing, silvering and distortion of the leaves that show up in patches of the crop during prolonged dry periods. Thrips may also attack flowers, leading to flower abortion. TSWV symptoms are many and varied, but include stunting, yellowing and distortion of plants, followed by wilting, plant collapse and death. Early leaf symptoms include pale ring spots.

Action level: Sample weekly if it has been dry for a long time. Only spray affected patches, or if there are >4–6 thrips per flower. However, be aware that western flower thrips are resistant to many pesticides, and that pesticides are ineffective in stopping the spread of TSWV.²³



Photo 17: Thrips.

²³ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.17 Whitefringed weevil (*Graphognathus leucoloma*)

Importance: Major and sporadic.

Damage: Larvae chewing into the taproot cause the most damage (Photo 18). This results in severely reduced vigour or the death of the plant. Pegs can also be damaged and mature larvae will chew the developing nut. Infestations in a crop are usually patchy. Adults will chew leaves and may cause patchy seedling stands in North Queensland. Root damage from larvae may allow CBR infection.

Action level: Monitor crops after rain from November to January for emerging adults.

Registered chemical: Check current registrations on the [APVMA](http://www.apvma.gov.au) website.

Cultural control: Reduce larvae carryover from the previous season's crop. Remove volunteer peanuts from maize to reduce the carryover of larvae in the soil. Avoid planting on land planted to, or adjacent to, peanuts or lucerne in the previous season. Reduce the frequency of legume and tuber crops in the rotation to help reduce populations; for example, avoid planting potatoes after peanuts.²⁴



Photo 18: *Whitefringed weevil*. Left: the larvae chew into pods and roots; they do not have an obvious head like a white grub. Right: adults feed on leaves and do little damage

²⁴ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

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7.5.18 Cane whitegrubs (*Lepidiota* spp.)

Importance: Significant and sporadic in North Queensland, usually following a grass pasture (Photo 19). Minor and infrequent in southern Queensland.

Damage: Young larvae feed on soil humus and small plant roots. Older larvae attack major roots, killing some plants and reducing the vigour of others. This can provide an entry point for CBR. The developing nuts can also be attacked.

Action level: Not determined.

Cultural control: Cultivation may physically damage many canegrubs, but is not a reliable control method. If grub numbers are high, the first crop following pasture may need to be pulled early. Alternatively, plant a non-legume crop in the first year after a pasture rotation.

Registered chemical: Check current registrations on the [APVMA](http://www.apvma.gov.au) website.²⁵



Photo 19: Canegrubs are a greater problem in North Queensland than in southern districts

²⁵ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.19 Peanut whitegrubs (*Heteronyx piceus*)

Importance: In the South Burnett, major and frequent. In other areas, infrequent.

Damage: Young larvae feed on soil humus and possibly small plant roots. Older larvae chew into both immature and mature pods, reducing yield and quality (Photo 20). Unlike canegrubs, peanut whitegrub larvae do not cause plant death.

Action level: Not determined.

Registered chemical: Check current registrations on the [APVMA](http://www.apvma.gov.au) website.

Cultural control: Intensive peanut rotations in a region, or on a single farm, lead to peanut whitegrub problems. Avoid planting before November if the area has a whitegrub history. Conventional tillage has very little effect on whitegrubs.²⁶

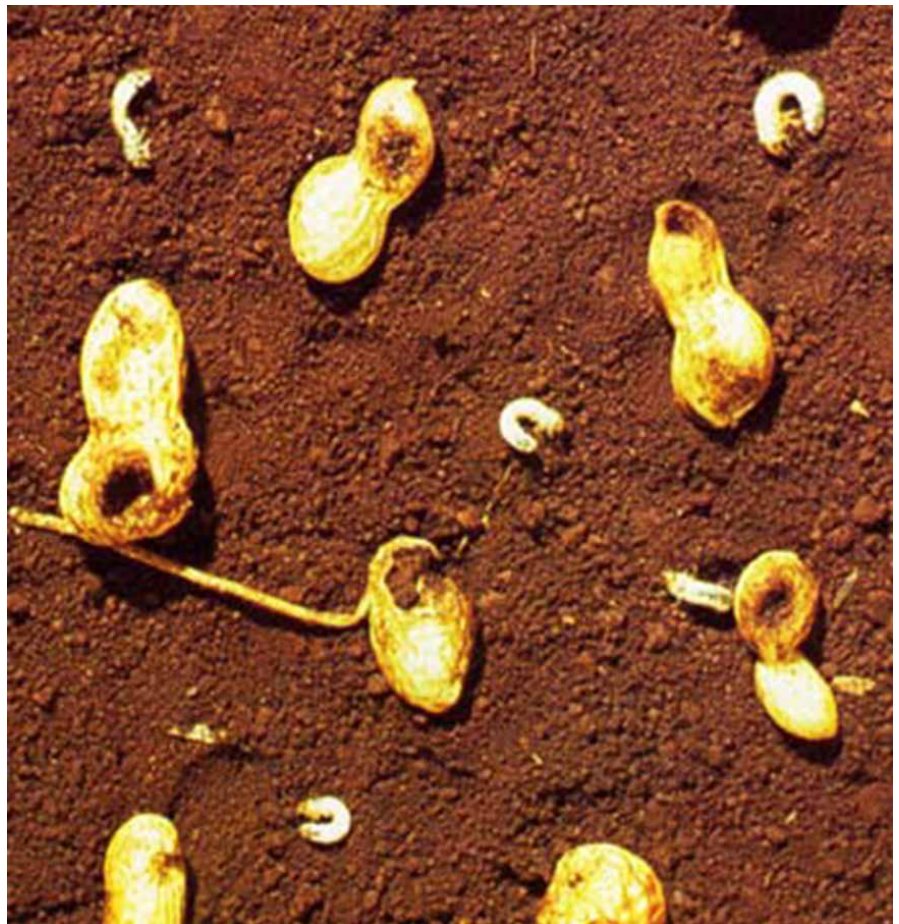


Photo 20: Damage by whitegrubs is often underestimated, as damaged pods are left behind at harvest.

²⁶ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf

7.5.20 Wireworms (click beetles, Elateridae)

Importance: Not fully documented. Usually not a problem in the South Burnett but significant damage has been reported in Central and North Queensland. On average, infrequent rather than regular.

Damage: Larvae can attack germinating seed and damage seedling roots. Larvae also attack pods, sometimes boring numerous small holes per pod (Photo 21).

Action level: Not determined. Check adult presence with germinating seed baits.

Control: Seed treatment will reduce, but not eliminate damage to seedlings.

Registered chemical: None registered.²⁷



Photo 21: Wireworm damage to a peanut kernel (top) and to a peanut pod (bottom).

²⁷ PCA/DPIF (2007) Managing pests. Peanut Company of Australia/Department of Primary Industries and Fisheries Queensland, http://www.pca.com.au/bmp/pdfs/4b_insect.pdf