Insect pests and their control - Clothes moths, Carpet beetles and their control

C. F. H. Jenkins

Follow this and additional works at: https://researchlibrary.agric.wa.gov.au/journal_agriculture3

Recommended Citation

This article is brought to you for free and open access by Research Library. It has been accepted for inclusion in Journal of the Department of Agriculture, Western Australia, Series 3 by an authorized administrator of Research Library. For more information, please contact jennifer.heathcote@agric.wa.gov.au, sandra.papenfus@agric.wa.gov.au, paul.orange@dpird.wa.gov.au.
INSECT PESTS
AND THEIR CONTROL

By C. F. H. JENKINS, M.A., Government Entomologist

Clothes Moths, Carpet Beetles and Their Control

Clothes moths and carpet beetles are among the most destructive of household pests, but because of their retiring habits their presence is often overlooked until an infestation has become well established, and extensive damage has been done. Both types of insect, however, may be kept in check by periodic attention and the same control measures are effective against both beetles and moths.

CLOTHES MOTHS

There are two common species of clothes moth in this State, and although the damage done by both is almost identical the habits of the two species are somewhat different.

General Description.
The webbing clothes moth, *Tineola biselliella* (Humm.) is probably the commoner species, and is uniform buff or straw coloured. The case-bearing clothes moth, *Tinea pellionella* (L.), is slightly darker than the preceding species, and bears three rather indistinct spots on the forewings. Both species are small, insignificant moths measuring up to \( \frac{1}{2} \) in. across the expanded wings.

Habits and Life History.
Moths may be seen flying both by day and night, but they shun the light, and are most often met with in ill-lighted and little-disturbed situations. The moths, of course, are not directly responsible for the damage done to fabrics, but are the parents of the small white caterpillars which do the actual injury.

The moths lay a hundred or more tiny white eggs on almost any kind of fabric or material of animal origin, such as wool, feathers, fur, felt, etc. The eggs hatch in about a week or more, according to the time of year, and the tiny caterpillars commence feeding. They are creamy white in colour with dark heads and measure about half an inch in length when fully fed.

The larvae of the webbing clothes moth spin a loose silken web or tunnel on the surface of the food material in which to shelter. When they are ready to pupate a silken cocoon is formed, into the walls of which may be woven little pieces of wool, grass, etc. The caterpillar stage may last from four to five weeks to several months, or even years, under very adverse conditions, so that it is quite impossible to give a definite length to the life cycle of the insect. The pupal stage may last from two to five weeks, after which the adult moths emerge to spend a brief period mating and laying eggs.

The larvae of the case-bearing clothes moth differ from the species just described in that the young caterpillars immediately spin themselves a compact covering of closely woven silk and fragments of the material on which they are feeding. The case is gradually enlarged as the insect grows, and the caterpillar lives in this
Fig. 1.—Webbing clothes moth, enlarged and natural size
(After Gibson and Twinn)

structure throughout its life, and in feeding protrudes the head and legs and drags the case about from place to place. When ready to pupate the caterpillar often strays right away from the food material and the small woven cases containing pupae may sometimes be found suspended from the bare walls or ceiling of a room.

Material Attacked.
Cotton and silk goods are not subject to attack by clothes moths, but any fabrics made from wool or fur are very attractive, as are also feathers and made-up furs. Piano felts and felt hats may, of course, be included in the list of potential foods. It has been observed that dirty garments are more readily attacked than clean materials.

CARPET BEETLES

There are several species of carpet beetles which may be met with in Western Australian homes, but the damage done by all is so similar and their life histories so much alike that the actual species concerned is of little importance.

The Australian carpet beetle, Anthrenocerus australis (Hope), is one of the commonest species and its life history and habits may be regarded as characteristic of the group.

General Description.
The beetle is a small rounded creature, a little over one-eighth of an inch in length. It is dark in colour with four distinct wavy white bands across the body, giving the insect a mottled appearance.

The larval or grub stage is the most destructive form of the insect, but is frequently not associated by the housewife with this beetle at all, due to a lack of knowledge of the creature's life history. The tiny grub is provided with legs and is quite active. Its general form, however, is somewhat obscured by a covering of hairs, a long tapering brush being carried at the tail end. The creature may perhaps best be described as looking rather like a miniature woolly bear caterpillar.

Life History and Habits.
The carpet beetle may at times be found in large numbers in the flower garden, for the beetles are attracted by the pollen carried by many flowers. Indoors the eggs of the beetle are laid almost anywhere but preferably on material such as wool, feathers, or fur, which will serve as food for the young.

The eggs hatch in about a fortnight, and the larvae may be active for several months according to weather conditions. As they grow the grubs shed their skins, and these empty hairy skins are one of the characteristics signs of the carpet beetle's presence.

Materials Attacked.
Practically any materials made from wool, fur or other animal products, including silk, are subject to attack. As the name carpet beetle suggests, floor coverings are among the commonest goods damaged, but clothing, etc., is also liable to attack.

Damage to nylon fabrics by carpet beetle grubs may occur but is more or less accidental. The sense of touch is of great importance in the selection of food and
Make hay the "Sunshine" way!

1. CLEAN-CUT EASY MOWING

WITH SUNSHINE MASSEY HARRIS POWER-DRIVE MOWER

The only mower with fully-machined cutter bars and milled-steel dipped fingers... clean-cutting... smooth-running.

* Hinged cutter bar; fully floating.
* Cuts at any working angle.
* Adjustable safety release clutch on drive.
* Oil bath lubrication.

2. CLEAN LOOSE WINDROWS

WITH SUNSHINE MASSEY HARRIS POWER-DRIVE SIDE-DELIVERY RAKE

The finest rake ever made... even at fast travel it rakes cleanly, leaving no gaps or gluts in the windrows.

* Adjustable transport and raking width from 5 ft. 6 in. to 7 ft. 6 in.; also adjustable raking height.
* Four-bar cylinder gives smooth operation.
* Safety release clutch.
* Tractor coupling and built-in jack for easy hitch.

3. UNIFORM SLICE PACKED BALES

WITH SUNSHINE MASSEY HARRIS 701 PICK-UP BALER

For one man operation, this automatic pick-up, twin-tying baler will bale up to ten tons per hour... with every bale of uniform firmness and dimension.

* 23 h.p. water-cooled, 4-cylinder engine.
* 52-inch pick-up handles 5-feet mower swath without raking.
* Bale size: 14 x 18 x 36 inches; packed in uniform slices for easier feeding out.
* Bale counter; reliable knotters.
* Tractor hitch with built-in jack.

Ask for full particulars at your local Agents or write direct to:

H. V. McKay MASSEY HARRIS PTY. LTD.
Maylands, Western Australia

Manufacturers of farm-tested, quality-proven machinery for 110 years.

MAIL TODAY!

Please send me full particulars on Sunshine Massey Harris HAY MAKING MACHINERY.

Name ____________________________
Address __________________________

Please mention the "Journal of Agriculture, W.A.," when writing to advertisers
Why Holden is best for your work and leisure

SMARTER TO LOOK AT, EASIER TO DRIVE, MORE ECONOMICAL TO RUN

All over Australia, country folk are realising that the new Holden Coupe Utility is just the vehicle they wanted.

On the financial side, the new Holden is a real investment, saving money right from the low first cost (£910 plus Tax). Remarkably low running costs, freedom from mechanical trouble, and negligible maintenance costs are further ways that the new Holden saves cash. And Holden enjoys a high resale value, which means a big benefit when you want to trade-in. Six cylinder power, plenty of load space, and excellent, all-round visibility bring greater efficiency to a day's work.

One of the reasons why Holden stands up so well to the work on an Australian property is because its Aerobuilt construction is specially designed and built to suit any Australian conditions. The new Holden Utility is not only tough, reliable and economical to run, but its good looks and comfort make it completely suitable for work and for leisure. No wonder this new Holden is by far the biggest selling utility in every State of Australia.

Next time you are in town, let your Holden Dealer arrange a demonstration drive. That will be all the proof you need that this beautiful new Utility is just right for you.

For the wives on the land, this Holden Utility is a joy. Really smart to look at and delightfully easy to drive, it makes trips to town, taking the kids on picnics, and visits to neighbouring properties the simplest thing imaginable.

List price £910 plus tax

HOLDEN* Australia's Own Utility

*REGISTERED TRADE MARK

"Air Chief" is the radio approved by GMH for Holden.

GMAC Hire Purchase arrangements are available to suit every income.

GENERAL MOTORS-HOLDEN'S LTD.

BRISBANE • SYDNEY • MELBOURNE • ADELAIDE • PERTH
the feel of nylon fibres may stimulate feeding. Nylon cannot be digested, however, and so damage is not extensive.

CONTROL

Both the clothes moth and the carpet beetle work best in secluded spots. Patches of carpet behind big pieces of furniture such as pianos, sideboards, etc., which are rarely moved, are particularly vulnerable, and, of course, their liking for woollens which have been stored away for long periods is only too well known to all.

The first essential should be rather the prevention of damage than the control of an outbreak once it has occurred. In this direction it cannot be over-emphasised that the frequent airing, shaking, or beating of carpets, clothing, etc., in the sunshine is of the greatest importance. Where goods must be stored away and left for long periods every care should be taken to see that they are clean and free from beetles at the time of being packed. If they are wrapped in several sheets of sound paper, each sheet being folded so that the joins do not coincide, a practically insect-proof container can be formed. The wrapped goods should be packed in a sound trunk and liberally treated with naphthalene or paradichlorobenzene, about 1 lb. being sufficient for a moderate-sized trunk. For the storage of suits and blankets, cotton or plastic bags are sometimes used. A liberal dressing of naphthalene or paradichlorobenzene should be placed in the bag and special care is necessary to see that the mouth of the bag is securely fastened. Wardrobes and chests should be periodically sprayed out and insecticide dusts should be sprinkled under the paper in the bottoms of drawers and trunks.

In the case of carpets and upholstered furniture the frequent use of the vacuum cleaner will minimise the chance of damage, but where injury is noticed the liberal use of any proprietary fly spray or even plain kerosene will kill any insects contacted.

The injury to piano felt may be prevented by suspending a bag of fumigant crystals, such as naphthalene, within the instrument and keeping the lid closed.

Upholstered furniture sometimes presents an especial problem on account of the depth at which the insect may be working. Liberal dressings of fumigant...
flakes pushed down behind the seat may be helpful, also the copious use of fly sprays. In some cases, however, it may be necessary to remove the fabric to effectively reach the insects.

**Protecting Carpets.**

When wall to wall or other large areas of carpet are laid, it is advisable to thoroughly spray or dust under the carpet, paying especial attention to the edges. The portions to be covered by the quarter round or by heavy furniture such as book shelves or pianos which fit closely down to the floor, should be thoroughly saturated with a non-staining oil solution of dieldrin or DDT. Liberal dusting with these materials will also prove effective.

**Naphthalene and Paradichlorobenzene.**

Both these materials are repellent to carpet beetles. The fumes of the latter are released rather more quickly than are those of naphthalene, hence paradichlorobenzene is slightly more effective as a fumigant when it is desired to deal with an attack, but flaked naphthalene lasts longer, and hence gives a longer period of security when packed with clothes or carpets. A mixture of both is sometimes used with good effect.

**Sprays.**

Most kerosene fly sprays depend for their effectiveness on contact, as the concentration of DDT present is usually too low to have much residual action.

Kerosene solutions containing 3 per cent. or 4 per cent. DDT, however, will give quite effective residues. Kerosene preparations are most suitable for use indoors as there is less danger of staining but water emulsions of both DDT and dieldrin can be used where wetting is of no importance.

**Dusts.**

DDT and BHC dusts may be effectively used but the unpleasant odour associated with some BHC preparations limits their use in dwellings. Dusts with concentrations of 5 per cent. or more insecticide are recommended.

**Turpentine.**

This is an effective contact insecticide and leaves a repellent residue for some time, but may stain.
Camphor.
In a close-fitting box camphor is effective, but more expensive than naphthalene, etc.

Hot Water.
A dipping in hot water (anything over 140 deg. F.) for 10 seconds or more will kill all stages.

Insect-Proofing Chemicals.
A number of chemicals have been used with greater or lesser success to insect proof fabrics such as carpets and floor coverings. A simple and effective treatment consists of impregnating the material with sodium fluosilicate. The powder is dissolved in warm water at the rate of one ounce to the gallon, and the mixture is applied so as to gain as deep a penetration of the fabric as possible.

Dieldrin has been shown to be a most effective moth-proofing agent and proprietary mixtures suitable for treating carpets and other materials are now available. When correctly applied dieldrin will resist both washing and dry cleaning.

Recently it has been found possible to protect fabrics from clothes moth attack by altering the physical structure of the wool fibre. This change in the molecular structure of the wool makes it quite indigestible to the moth caterpillars which consequently die of starvation.

Cold Storage.
Carpet beetles and moths will not work at low temperatures and so valuable furs, etc., are sometimes kept in cool stores. Care should be taken to see that only clean furs are stored, however, as the grubs may remain dormant for long periods and then commence feeding when the fur is later brought out for use.

Fumigation.
Where necessary, trunks or even rooms may be fumigated for beetle and moth control, and carbon bisulphide, cyanide and various proprietary fumigants are suitable for this purpose. Carbon bisulphide is easily used and may be placed in a sealed trunk at the rate of about two tablespoonsful to six cubic feet. The gas, however, is explosive and inflammable, and so should not be handled indoors.

Now Booking Roses and Fruit Trees for Delivery mid-June to mid-August
LARGE BALLEED ROOTED CITRUS TREES AS ILLUSTRATED . . . . 20/- EACH
To Commercial Growers we offer Late Valencia and Washington Navel Orange (yearling trees) budded on Trifoliata Stock
Ask for Quotes
Full Range of Deciduous Fruit Trees Available
Also: Flowering Peaches
" Cherries
" Plums
" Almonds

Garden Shrubs and Trees in a huge range
In addition to Standard Size Plants in Pots we have 15,000 extra large Shrubs growing in kerosene tins
Write for Catalogue which is Free and Post Free

WILSON & JOHNS PTY. LTD.
74 BARRACK STREET, PERTH
BF 3048 (3 Lines)
Nurseries: CANNINGTON, EAST FREMANTLE, SPEARWOOD
Get right into the job
with a Mobilco 7C . . . .

A man feels good working a Mobilco. It is light so he can get right into the job even where there is not much room to move. He can fall a big tree quickly then turn the blade over to the cross cutting position and cut logs of any size he likes . . . and falling, cross-cutting, or doing long, straight ripping cuts, he feels the security of the Automatic Clutch, the clutch that cuts out engine stalling whenever the blade jams.

A Junior 7C, a 36 inch Blade and not too much effort is a hard-to-beat combination for a good day's work. There's plenty of toughness in the light, strong frame. There's plenty of power in the 7 h.p., 4-stroke British Engine and there's all the ease of operation a man could wish for in Mobilco's Automatic Clutch.

Price of the JUNIOR 7C is £205 or on £88 deposit (Prices slightly higher outside Victoria) and there's the JUNIOR 5 Australia's value leader at £178 or on £82/8 deposit. F.O.R. Melbourne

Thinking about a Saw?

Send this to Mobilco and we'll send particulars of the full range back to you tomorrow.

NAME

ADDRESS

MOBILE INDUSTRIAL EQUIPMENT LTD.

293 HAY STREET, EAST PERTH
HEAD OFFICE: 410-422 WHITEHORSE RD., MITCHAM, VIC. Phone: WU 2771 (10 lines)
BRANCHES: SYDNEY, ADELAIDE, BRISBANE
AGENTS: LAUNCESTON AND HOBART

Please mention the "Journal of Agriculture, W.A.," when writing to advertisers