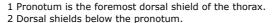
Knowing and recognising thrips in your crops

Morphological characteristics Behaviour and life cycle Host plants Females 1.2 mm long, males 1 mm. Adults and larvae prefer flowers where Feeding causes 'silvering' on leaves Broad range of host Western along with leaf, flower or fruit Variable in colour, from vellow to dark they feed on pollen, but they can also be plants, both vegetable flower thrips deformation. This species is the most and ornamental plants. brown. 8 antennal segments. Long setae present on leaves. Pupation occurs in below the compound eyes and 2 the substrate or on plants. important vector for both tomato Frankliniella occidentalis Developmental time at 25°C is 15 days. between the ocelli. Upper part of spotted wilt virus (TSWV) and impatiens pronotum with long setae. Forewing with Females live about 20 days and lay necrotic spot virus (INSV); will also 2 complete rows of veinal setae. Comb 2-5 eggs per day. transmit tomato chlorotic spot virus complete with small microtrichia. (TCSV). Females 0.8 -1.0 mm long. Males Both adults and larvae cause damage Onion thrips Mainly found near the leaf yeins. Outside very common on smaller and very rare. Light yellow to pupates in the substrate. Females that appears as a silvery streaking or onion and leek, in Thrips tabaci brown in colour, 7 antennal segments produce 70-100 eggs in total, about whitish blotches on leaves. Feeding can greenhouses found on Upper part of pronotum with short 2-5 per day. Developmental time at also cause spots on flowers. Vector of both ornamental and 25°C is 13 days (measured on setae. Comb complete with long vegetable plants. microtrichia. cucumber). Females 1.6 mm long, males 1.3 mm. Typically leaf-dwelling thrips. They do Feeding causes a greyish colouration of Ornamental plants Poinsettia thrips not feed on pollen. Often found on the Dark brown to black and armoured. End the leaves and eventually leaf death and (rose, gerbera), pepper, Echinothrips americanus segments of legs yellow. Forewings lower leaves in plants. Adults not very abscission. The species is not known to cucumber and aubergine. active flyers and not often found on dark, but sharply white near the base. transmit viruses. 8 antennal segments. Pronotum strongly sticky traps. All stages stay on the plant, reticulate. Comb complete. no pupation in the substrate. Females ca. 1.3 mm long, dark brown. All stages found on plants, both leaves Silvery coloured feeding spots on leaves. Hydrangea, poinsettia, Japanese Males yellow. Dark forewings, but and flowers, but they do not feed on Primarily leaf feeding, but can also occur potted plants, lily, flower thrips sharply white near the base. 7 antennal pollen. Present on both the lower and in flowers. Vector of TSWV. segments, segment III and IV slender upper leaf surfaces. Will go into chrysanthemum, tomato, Thrips setosus and light. Upper part of pronotum with diapause in response to less than pepper, cucumber, rose short setae. Clear comb with long 12 hours light per day and low and gerbera. temperatures. Will probably also survive outside greenhouses. Females 1.0-1.2 mm long, dark brown Mainly present in flowers, but also on Feeding leads to deformed flowers and Orchidaceae: vanda, Vanda thrips to black. Dark forewings, but sharply leaves. All stages present on the plant. flower spotting. Virus transmission is not phalaenopsis and cattleya. Dichromothrips corbetti white near the base. 8 antennal segments. Short setae on head and pronotum. Clear comb with long Palm thrips Brown coloured thrips, forewings mainly Present on old leaves, larvae occur in Silvery coloured feeding spots on leaves. Ficus species, dracaena, pale with 2 dark cross bands. End groups together on the lower leaf palm and orchid. Parthenothrips dracaenae segments of legs yellow.7 antennal surface. All stages present on the plant. segments, I-V largely yellow and all slender. Head and pronotum strongly reticulate. Larvae typically have hairs with thickened ends. Comb not clear. Ficus benjamina. Leaf-gall Relatively large species, 2.6-3.6 mm Adults migrate to terminal leaves and Feeding causes sunken purplish-red establish folded-leaf galls. Mating, egg spots on leaves. Feeding also results in long. Yellow brown to black in colour. thrips of ficus a specific, directed growth reaction that Head longer than width with clear red laying, and a complete generation eyes. 8 antennal segments. Last develop within a single gall. Adults exit causes the leaf to roll, or the leaf may Gynaikothrips uzeli segment tube-shaped. galls and migrate to new terminal leaves fold along the midrib. to begin a new generation. The life cycle takes about 30 days. Thrips move rapidly after disturbance.









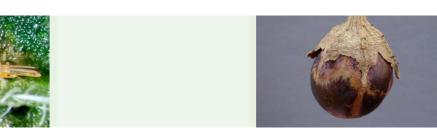
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Meso- and metanotum² Abdominal tergites with comb Morphological characteristics Behaviour and life cycle Body and legs variable in colour, but Typical flower thrips, all stages Fruit damage in strawberry, vector of Broad host range of flowering plants European mainly brown. Morphologically close to found mainly in flowers. TSWV, INSV, TCSV. with pollen. Damage reported on flower thrips strawberry, but potential pest status western flower thrips, but without the long hairs below the compound eyes. for other crops is unclear. Frankliniella intonsa 8 antennal segments. Upper part of pronotum with long setae. Forewing with 2 complete rows of veinal setae. Comb complete with short microtrichia. Orchid thrips Adults ca. 1 mm long and yellow. Adults and larvae present in Feeding damage on leaves and Orchidaceae, Musaceae (banana Forewings dark with a clear white band. flowers and on fruit. Pupation fruits. In anthurium, colonised family), Rutaceae (citrus family) Chaetanaphothrips 8 antennal segments. Pronotum with flowering bracts do not open. occurs in the substrate. Long and anthurium. 2 pairs of prominent setae in the lowest developmental time of about leaves become deformed and orchidii row, other setae short. Metanotum 5 weeks at 20°C. brown coloured. weakly reticulate. Comb not complete Female adults ca. 1.5 mm long, first Adults and larvae found on leaves, Feeding causes 'silvering' on leaves. Many different and unrelated plant Banded yellow, becoming dark brown to black. pupation occurs low in the crop species, including several greenhouse thrips Legs partly yellow. Forewings brown but on old leaves. Not very mobile greenhouse crops: orchid, ficus, pale at apex and sub-basally, and with doesn't move even after aubergine, chrysanthemum and Hercinothrips femoralis submedian area variably lighter. disturbance. Life cycle takes about 8 antennal segments with last segment 4 weeks. elongated to sharp point. Pronotum without long setae. Comb not complete. Female adults dark brown, 1.2-1.4 mm Present on leaves and in leaf Cereals and grasses, greenhouse Do not cause any damage to Grain thrips long. Males wingless, 0.6-0.8 mm long. axils. Often swarming in greenhouse crops. plants are not suitable hosts. Limothrips cerealum 8 antennal segments. Head longer than enormous numbers during dry width with short setae. Forewing first and warm mid-summer days, vein with 2 setae on distal half, second associated with thundery weather vein with about 8 setae. Pronotum with and therefore these insects are 1 pair of long setae in the lower row. also called 'thunderflies'. Can be Comb not present. found in high numbers on sticky traps in greenhouses. Females dark brown with last abdominal Often abundantly present in Feeding causes 'silvering' of leaves Rosaceae: rose, strawberry. Rose thrips segments almost black. Males yellow to vegetation near greenhouses, and flower damage. Solanaceae: tomato, pepper, Thrips fuscipennis light brown and smaller. 7 antennal present in flowers and on leaves. segments. Forewing first vein with Adults mainly found in flowers. 3 setae on distal half; second vein with 12-15 setae. Clear line structure on head and pronotum. Pronotum with 2 pairs of long setae in the lower row. Comb not complete. Female body brown, head and thorax Present on leaves and in flowers. Feeding causes obvious deformation Asian species but recently Tobacco thrips paler than abdomen, head commonly Apparently attracted to white of younger leaves. established in EU. Very polyphagous Thrips parvispinus with cheeks darker than median area; with a wide host range. Found on legs mainly yellow. Males yellow. 7 ficus, gerbera, gardenia, mandevilla antennal segments. Pronotum with 2 and schefflera. pairs of long setae in the lowest row. Forewing first and second veins with complete rows of setae. Comb almost









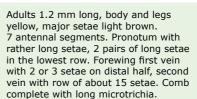








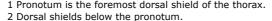




Tropical species. Adults and larvae present on leaves and flowers, pupation occurs in the substrate. Reproduction time is about 18 days at 25°C. Females lay 20-60 eggs in total, depending

Feeding results in silvery spots near leaf veins. At high densities, leaves and fruit turn brown and growth is reduced. Vector of TSWV and other

Q-organism in the EU and not present, but sometimes detected on imported plant material. Very polyphagous species. Pest of chrysanthemum, orchid, rose, potted plants cucumber, courgette, aubergine, tomato and pepper.





¹ Pronotum is the foremost dorsal shield of the thorax