Seasonal Occurrence of Japanese Gall-forming Thrips, Ponticulothrips diospyrosi Haga et Okajima, and Its Damage Pattern

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Seasonal occurrence of Japanese gall-forming thrips, Ponticulothrips diospyrosi Haga et Okajima, and its damage pattern on leaves and fruits were studied at sweet persimmon orchards in Gimhae (orchard A, B) and Changwon, Gyeongnam, Korea in 2002 and 2003. Monitoring adults by yellow sticky traps and inspecting each developmental stage in damaged rolled-leaves revealed that the overwintered adults moved to sweet persimmon orchard from late April to late May, and oviposited inside the rolled leaves. Adults developed from the eggs showed peak occurrence of the first generation adults in early to mid June. Inspection of rolled leaves indicated that the peak occurrences of eggs, nymphs, and pupae of the first generation took place in early to mid May, late May to early June, and early June, respectively. Each developmental stage showed the second small peaks in the late season. Results suggest that most thrips live a single generation per year, but a small portion may develop to the second generation in persimmon orchards. The percent of damaged leaves was highest in Changwon orchard at 9.7% in early June. Percentage of damaged fruits increased from 0.84% in early June to 30.2% in early September in Gimhae B orchard. It was found that the closer the persimmon trees were to the edge of the orchard, the worse damaged the leaves were. Appropriate timing for incorporation of control measures were discussed in relation to the seasonal occurrence of adults.