Supporting Information (SI), Legends to figures.

Figure S1. Viruses of the rosy apple aphid. ***A***. Transmission electron microscopy of purified virus from clone WS. Two types of virus particles: 32 nm (RAAV) and 22 nm (DplDNV). ***B.*** Organisation of the genomic DNA of DplDNV (Gene Bank Accession EU851411). MB - histidine-rich divalent metal cofactor binding, NTPase - nucleotide-binding and helicase domains. ***C.*** Organisation of the genomic RNA of RAAV. HEL - picorna-like RNA helicase, PROT - chymotrypsin-like protease, RdRpol - RNA-dependent RNA polymerase. Open reading frames (ORFs) are represented as shaded arrows, numbers indicate nt positions, CP- coat protein, fs – site of translational frameshift, and A_n – poly A sequence. ***(D-F)*** Detection of DplDNV and RAAV infections in the rosy apple aphid by (RT) PCR, gel electrophoresis of the products. ***D.*** Detection of DplDNV and RAAV in the aphids from the clones WS and 2-11, no viruses detected in aphids from the clone EM-1. ***E***. Detection of RAAV and DplDNV in the aphids and virus preparation from clone WS. The lower mobility of from the DplDNV fragment amplified in RT PCR was due to excision of the intron the DplDNV mRNA for expression of the non-structural genes. ***F.*** Detection of RAAV and DplDNV in individual aphids from clone WS; light fifth instars without wing buds, dark fourth instars with wing buds, winged fifth instars.

Figure S2. Partial sequence of the mRNA of putative Acyrthosiphon pisum densovirus (EST Gene Bank Accession Number EX610113 from the whole genome library of *Acyrthosiphon pisum*, strain LSR1, from winged and wingless nymphs and adults). ***A.*** Sequence alignment of the peptide encoded by the *A. pisum* EST Accession Number EX610113 and the C-terminal parts of the non-structural proteins of DplDNV and MpDNV (Gene Bank Accession Number NC_005040). ***B.*** Sequence alignment of the nucleotide sequences of the *A. pisum* EST Accession Number EX610113 and homologous parts of DplDNV and MpDNV genomic sequences.

Figure S3. Distribution of the aphids from the virus-free and virus-infected clones on plantain plants. The colonies were established by placing ten adult aphids on a 15 cm-high plantain plants and propagated for 12 days at $20^{o}C \pm 1^{o}C$ on a 16/8 h light/dark cycle and. Three plants were used for each of four aphid clones. Bars depict mean ± standard error of (***A***) aphid number and (***B***) percentage of aphids to the total number on the plant on lower parts of the plants, L (from the base of the leaves to 5 cm above the leaf base); and on the upper parts of the leaves, U (from the 5 cm above the leaf base to the top of the leaf). The same letters above the bars indicate the aphid numbers or the percentages of the aphids in the upper parts of the leaves (U) without significant difference (ANOVA, LSD test, $P<0.05$).

Figure S4. Aphid dispersal experiments. (***A)*** The controlled environment dispersal experiment. Each pair of donor and recipient plantain plants are located approximately 85 cm apart within insect-proof chambers, 100 cm long, 30 cm high and 20 cm wide. Plants are placed in water traps (Petri dishes filled with water) and watering is carried out through built-in piping. (***B, C***) The field dispersal experiment. The donor and recipient plants are placed inside insect-proof tent-shaped chambers made of a nylon mesh, 2.5 m long, 1 m wide, 0.85 m high. Plants are placed inside a water traps (plastic trays filled with water).