Powdery mildew can be biologically controlled by means of *Ampelomyces quisqualis*, according to A. Sztejnberg of Hebrew University of Jerusalem, Israel. The hyperparasite substantially reduces sporulation and brings about degeneration of the mildew. Control in the greenhouse was obtained by repeated inoculation every 10 days for the following: *Erysiphe betae* on sugar beets, *E. umbelliferarum* on carrot, *Leveillula taurica* on pepper, *Oidium* sp. on sow thistle and zinnia, *Phyllactinia suffulta* on mulberry, *Podosphaera leucotricha* on apple, and *Sphaerotheca fuliginea* on cucumber and watermelon. (International Congress of Plant Protection, Washington, DC, 1979)

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Chlamydospores of *Phytophthora cinnamomi* that is destructive to Australian eucalypts survive in intestinal tracts of termites (*Nasutitermes exitiosus*) and in two species of forest birds indigenous to West Australia jarrah forests, according to D. Keast and L. G. Walsh of the University of West Australia, Nedlands. Viable chlamydospores are recovered from bird feces within the normal rate of passage through the gut. These factors allow the creatures to function as vectors for spores. (Appl. Environ. Microbiol. Vol. 37, No. 3, 1979)

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The cost of biological control of weeds by insects in Canada from its start in 1950 to the end of 1976 is calculated as 18.8–23.7 scientist-years, or currently $1.2–$1.5 million, according to P. Harris of Agriculture Canada, Saskatchewan. He concludes that this makes biological control economical for use only against the major weeds and cautions against using conspicuousness as the only basis for choosing weeds to control. Information on losses produced by each weed, however, is lacking. (Weed Sci. Vol. 27, No. 3, 1979)

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A new species of nematode (*Anguina funestor*) described by P. C. Price, J. M. Fisher, and A. Kerr of the Waite Agricultural Research Institute, South Australia, is associated with the toxicity of annual ryegrass (*Lolium rigidum*) to animals. For more than 20 yr, sheep and other animals in southern Australia have died after feeding in pastures dominated with ryegrass. The nematode is associated with a yellow slime bacterium (*Corynebacterium* sp.) and is an essential, main vector for the bacterium in pastures. The nematode carries the bacterium on its body surface when traveling to the inflorescence, where it produces galls in grains. The bacterium cannot by itself penetrate ryegrass. Symptoms in ryegrass appear when the inflorescence emerges, partly or wholly covered with a sticky, bright yellow slime of bacteria. (Nematologica Vol. 25, No. 3, 1979)

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To provide an alternative to the monoculture of henequen, from which sisal fiber is produced for export, more than 275 cultivars of 100 new crop species were introduced in 1965 and tested at a private research station close to the sisal zone near Ticul, Yucatan, Mexico. Sesame and soybean showed greatest promise of development for export, report agronomist M. A. Sprague and associates. Corn and sorghum also proved well adapted to the area. With the lessened demand for sisal, new sources of agricultural income are needed for the predominantly Mayan population. (Interciencia Vol. 4, No. 2, 1979)

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A *Verticillium* species is parasitic to several nematodes that are parasites on strawberry, reports T. Watanabe of Tokyo, Japan. The nematodes are species of *Aphelenchoides, Cephalobus,* and *Panagrolaimus*. This *Verticillium* is also antagonistic to *Pythium splendens, P. sylvaticum,* and *Rhizoctonia solani.* (International Congress of Plant Protection, Washington, DC, 1979)

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The allelopathic potential of oats as a biological weed control measure is suggested by P. K. Fay and W. B. Duke of Montana State University. They tested 3,000 accessions of the world collection of *Avena* species for ability to exude scopoletin from the roots; scopoletin is a naturally occurring substance with properties that inhibit root growth. Twenty-five lines produced more scopoletin than did the standard oat cultivar, Gerry; in fact, four lines produced up to three times more. One of these lines, PI 266281, grown with wild mustard for 16 days in sand culture, resulted in severe chlorosis and stunting and significantly less growth in mustard plants than Gerry oats grown alongside mustard. These symptoms were interpreted as typical of allelopathy and not due to competition. The effects were not attributed to scopoletin alone, however, and toxicity was apparently due to additional allelopathic substances. (International Congress of Plant Protection, Washington, DC, 1979)

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Automobile exhaust suppresses growth rates in juvenile thalli of the lichen *Pseudoparmelia baltimorensis*, apparently because of the high atmospheric lead burden. Comparisons were made in two islands in the Potomac River, MD, one where the lead burden is high and the other where it is low, by J. D. Laurey of George Mason University and M. E. Hale, Jr., of the Smithsonian Institution. The effect on lichens was attributed to stress induced by car exhaust pollutants. (Science 27 April 1979)

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Some strains of *Rhizobium japonicum* synthesize a unidirectional hydrogenase in nodule bacteroids of legumes, according to S. L. Albrecht and colleagues of Oregon State University. Soybeans inoculated with strains that synthesize this hydrogenase system fix significantly more nitrogen and produce greater yields than plants inoculated with strains lacking the hydrogen uptake capacity. (Science 23 March 1979)

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Diclofop, a new herbicide, controls volunteer corn in soybeans, report R. N. Andersen, USDA agronomist, and J. L. Geadelmann, corn breeder at the University of Minnesota. Spraying the herbicide on tops of corn and soybeans controlled most of 240 corn belt hybrids tested. Some differences in susceptibility, however, could give unsatisfactory control of certain hybrids growing as volunteers in soybean fields. (USDA, ARR-NC-1, 1979)

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Watermelon mosaic virus incidence was reduced by 94% with aluminum and 77% with white plastic mulch used in summer squash plantings at the University of California, Riverside, report J. A. Wyman and colleagues. The total yield was increased by 43%. Yield responses were especially evident during early production. The effect of the mulches was a 68–96% reduction in populations of alate aphids that migrate into the squash plantings in February and May. The predominant aphid species was *Myzus persicae*. (J. Econ. Entomol. Vol. 72, No. 2, 1979)

Rickettsial parasites were found in cyst nematodes by J. A. Walsh, D. L. Lee, and A. M. Shepherd of the Rothamsted Experiment Station and the University of Leeds, England. The pleomorphic organisms have ultrastructural features typical of rickettsias and have hollow tubular inclusions dispersed in paracrystalline fashion. The parasites are carried from one generation to the next in the egg. (International Congress of Plant Protection, Washington, DC, 1979)

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Diseases appear to be diminished in most plants with mycorrhizal roots if the diseases are caused by root-infecting fungi. Diseases of aerial parts of plants caused by fungi or viruses, however, are usually more severe in mycorrhizal plants. The principles responsible for increase in resistance occur in the mycorrhizal sites of roots but are translocated to a limited extent within the root system and not at all to the aerial portions of plants. F. Schönbeck and H. W. Dehne of the University of Hanover, West Germany, studied *Helminthosporium sativum* and *Erysiphe graminis* on barley, *Colletotrichum lindemuthianum* and *Uromyces phaseoli* on french bean, *E. cichoracearum* on cucumber, *Botrytis cinerea* on lettuce, TMV on tobacco, and *Olpidium brassicae*. (Pfl. Krankh. Vol. 86, No. 2, 1979)

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A parasitic braconid wasp (*Bracon hebetor*) effectively controls larvae of an insect pest (*Ephestia cautella*) on dry dates, report M. S. H. Ahmed and associates of Baghdad, Iraq. (International Congress of Plant Protection, Washington, DC, 1979)

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The herbicide Avadex used in sugar beet fields increases hatching rates of *Heterodera schachtii* from 117 to 344%, depending on the concentration used, report R. Kraus and R. A. Sikora of Bonn, Federal Republic of Germany. The increase is greatest when cysts are exposed to the herbicide for 8 days. (International Congress of Plant Protection, Washington, DC, 1979)

Lectin activity is found in roots, shoots, and leaves of peanut and soybeans in all stages of development, from seedlings to maturity (7 wk), report biochemists D. J. Bowlers, H. Lis, and N. Sharon of Cambridge and of the Weizmann Institute of Science, Rehovot, Israel. The cellular locations of lectins differ; lectins in soybeans are membrane-associated but those in peanut occur in soluble cytoplasmic fractions also. Membrane-associated lectins appear different from seed lectins in both crops. (Planta Vol. 145, No. 2, 1979)

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When applied to the surface of moist soil as clay granules, the herbicide chlorpropham kills seedlings of field dodder (*Cuscuta campestris*) and large seed dodder (*C. indecora*), both parasitic to alfalfa, whether the herbicide contacts dodder seedlings in the soil or in the air above the soil. J. H. Dawson, USDA research agronomist at Prosser, WA, reports that the herbicide in the clay granules moves principally as a vapor into the air instead of into the soil. (Weed Sci. Vol. 27, No. 5, 1979)