The ubiquitous ability of bacteria to produce bacteriocins in culture suggests a selective advantage to the trait, probably a weapon used by bacteria when competing with related strains in natural habitats. Evidence for this is presented by M. L. Smidt and A. K. Vidaver of the University of Nebraska, Lincoln, in the first report of bacteriocin production within inoculated plant tissue. *Pseudomonas syringae* strain PsW-1 with ability to produce syringacin W-1, a rod-shaped bacteriocin, was coinoculated into red kidney bean stems with a bacteriocin-sensitive strain of *P. syringae*. The sensitive strain did not multiply in tissue in the presence of the producer strain but grew well when coinoculated with a mutant that did not produce bacteriocin. A bacteriocin-resistant mutant also grew well when coinoculated with the producer strain. Bacteriocin particles were recovered from tissue. These results strengthen the possibility that bacteriocin-producing strains have potential in disease control. (Can. J. Microbiol. 28:600-604)

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Attachment of microorganisms to plant cells is prerequisite to infection in many cases, and there is evidence that recognition phenomena and a tendency for adherence at the cell-cell interface determine the specificity of some host-pathogen combinations. Ability of some plant materials, most notably certain lectins from the host, to agglutinate cells of the pathogen has been used as one indication of a possible recognition mechanism. D. H. Young and H. Kauss of Fachbereich Biologie der Universität, Kaiserlautern, Federal Republic of Germany, have shown for *Colletotrichum lindemuthianum* pathogenic to bean that ability of plant proteins to agglutinate cell wall fragments and spores of the pathogen does not correlate with specificity of the fungus to beans. Fungus walls and spores were agglutinated by extracts from seeds and hypocotyls of resistant as well as susceptible cultivars and also by seed extracts from two nonhosts, *Vigna radiata* and *Ricinus communis*. According to the authors, agglutination phenomena do not necessarily involve lectin-carbohydrate interaction or other group-specific binding. (Physiol. Plant Pathol. 20:285-297)

Evidence for a gene-for-gene relationship between pathotypes of the cyst nematode *Globodera rostochiensis* and cultivars of *Solanum tuberosum* subsp. *andigena* and between *G. pallida* and *S. multidissectum* has been presented by D. M. Parrott of Rothamsted Experimental Station, Harpenden, England. Two pathotypes of *G. rostochiensis* were studied: Ro1 from England, which was unable to produce females (cysts) on plants with the H_1 gene for resistance, and a pathotype (either Ro2 or Ro3) from Bolivia, which reproduced on plants with the H_1 gene. The two pathotypes of *G. pallida* were designated Pa1 and Pa3; Pa1 produced few and Pa3 produced many females on plants with the H_2 gene. Reactions were determined for the F_1 and F_2 generations and progeny of backcrosses from crosses between the respective pathotypes on the appropriate potato cultivars. The best explanation of the results is that phenotypes with ability to reproduce on plants with resistance genes were homozygous for a single recessive gene, the genotypes were in a Hardy-Weinberg equilibrium, and inheritance was Mendelian. Combined, these conclusions support the hypothesis for a gene-for-gene relationship between pathotype and host. (Nematologica 27:372-384)

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The primary mode of action of furalaxyl (CGA-38140) and metalaxyl (CGA-48988) in controlling diseases caused by phycomycetes involves impaired biosynthesis of RNA and a concomitant effect on mitosis, according to D. J. Fisher and A. L. Hayes of Long Ashton Research Station, Bristol, England. Results with the related ofurace (RE-20615) were less definitive, but mode of action is probably the same. Tests were conducted on *Pythium ultimum*, *Phytophthora nicotianae*, and *P. palmivora*. The fungicides were readily absorbed by the mycelium against a concentration gradient. Germination of sporangia and zoospores was affected the least and sporangial production was reduced the most by the fungicides, apparently because of reduced nuclear division. Fungal respiration was either unaffected or stimulated somewhat. Effects on membrane permeability and cell wall synthesis were ruled out as modes of action. The authors suggest that the fungicides may 1) bind to DNA, rendering it unsuitable as a template for RNA synthesis without affecting DNA synthesis, or 2) inhibit RNA polymerase. (Pestic. Sci. 13:330-339)

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Artificial onion oil applied to soil stimulates germination (and death and destruction) of sclerotia of the onion white rot pathogen, *Sclerotium cepivorum*, according to recent studies in Europe and Australia. The treatment worked in muck soil, report R. S. Utkhede and J. E. Rahe of Simon Frasier University, Burnaby, British Columbia. In field trials, a commercial preparation of onion oil incorporated at 37.5 L in 750 L of water per hectare 1 month before planting reduced the population of sclerotia by nearly two-thirds, which lowered the incidence of white rot by 73%. Onion oil could be used on a practical scale if a cheaper source were available. (Can. J. Plant Pathol. 4:79-80)

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An inexpensive hydropneumatic elutriation system for quantitative separation of roots from soil in field and greenhouse experiments has been devised by A. J. M. Smucker, S. L. McBurney, and A. K. Srivastava of Michigan State University, East Lansing. The components of the apparatus are: 1) a high-kinetic energy washing chamber with pressurized jet sprays, 2) an elutriation chamber, 3) a transfer tube, 4) a low-kinetic energy primary sieve that uses air flotation, and 5) a secondary sieve. Washing times range from 3 to 10 minutes, depending on soil texture, plant species, soaking time, and other factors. A manifold of nine units operated by two people processed 60 samples an hour. A unit costs $25 to construct, excluding labor. A complete description, including drawings, is given. (Agron. J. 74:500-503)

Recent reports from fields related to plant pathology for inclusion in *Scientific News* may be sent to R. James Cook, 367 Johnson Hall, Washington State University, Pullman, WA 99164.