Index for Volume 74 of Plant Disease

AUTHOR AND SUBJECT INDEX. Page numbers of illustrations are in parentheses.

*Acremonium* sp., endophyte on turfgrass, fungicide relation, 879
- *A. coniocephalum*, on tall fescue, nematode reproduction, 757
*Actinidia delicosa*, root knot nematode of, occurrence in South Carolina, 81
Adaskaveg, J. E., 173, 341, 558
Afeik, U., 66, 117
African cassava mosaic virus, etiology and control, 404, (405-407)
Agrichemicals, use and risk management, employee liability, symposium, 108
Aquino, V. M., 923
Air pollution (see also Ozone)
- acidic fog, ornamental flower crop injury, 310
- forest decline in Germany, epidemiology, 4, (6-10)
Akem, C. N., 216
Akiew, E., 615
*Albuco occidentalis*, on spinach, control with metalaxyl, 913
Alcorn, S. M., 219
Aldrich, J. H., 203
Alexander, S. A., 552
Alfalfa
- *Aphanomyces euteiches* of, resistance specificity, 164, (164)
- leaf spots of, yield and quality affected by in North Carolina, 241
- Phoma foliar blights, symptom expression, isolates, 668
- Phoma root infection, pathogenicity, 680, (681, 682)
Alfalfa mosaic virus, on tobacco, genotype variation, 956
Allan, R. E., 852
Allen, W. R., 81
Almond, shotheal disease, mist generator and monitoring system, 558
*Alternaria* spp.
- *A. alternata* on cucumber, host range, 227
- on mandarin fruit, mycotoxin association, 415, (416); on pear, new disease in Greece, 720
- *A. angustiovoidea*, on leafy spurge, pathogenicity, 601, (603)
- *A. cucumerina*, on muskmelon, resistance inheritance, 868
- *A. solani*, on potato, resistance and rotation effect, 849
Alvarez, E., 917
American Phytopathological Society, 1990 annual meeting program, 454
Ammon, V., 589
*Amphothele ricini*, on poinsettia, new disease, 828
Andersen, P. C., 203
Anderson, D. L., 683
Anderson, P. K., 938
Anderson, R. L., 969
Antitransplant, plant protection use, in China, 263
*Aphanomyces euteiches*
- on alfalfa, resistance specificity in seedlings, 164
- detection in soil, wet-sieving/baiting technique, 7
- on pea, green manure effect, 651
*Aphis gossypii*, cucumber mosaic virus vector, in muskmelon, transmission correlated with titer, 857
*Apionomnonia veneta*, on sycamore leaves, factors, 989
*Aplos americana*
- cucumisomaic and Desmodium yellow mottle viruses, 151,(152)
- *Sclerotinia sclerotiorum* on, new host, 720
*Apple*
- *Botryosphaeria obtusa* on, fungicides for, 1029
- *Erwinia amylovora* in tissues of, population, 711, (712)
- flyspeck of, conidial dispersal, 643
- Phytophthora root and stem rot, occurrence in stool beds, 141, (143)
- scab of, disease forecasting and spray program, 638
- stem pitting agent, virus isolation, 610,(611-613)
*Apricot*, bacterial canker complex, nematode relation, 394
Arauz, L. F., 1029
*Arachnophenix alexandrae, Pseudomonas solanacearum* on, new host in Australia, 615
Armstrong, C. C., 356
*Arumacgia rusticana*, root rot complex, 391
Ascochyta rabiei, on chickpea, resistance patterns to races of, 127
Ash, ash yellows, decline and geographic range, 604
Asparagus
- Fusarium crown and foot rot, etiology, 938
- Stemphylium purple spot, debris management, 413
Aspergillus spp.
- *A. flavus* on corn, kernel infection, 627, 978; in cottonseed, aflatoxin contamination, atoxogenic strain effect, 233
- *A. glauca*, on corn, moisture effects, 985
- *A. parasiticus*, on corn in Mississippi, 978
Assemi, M., 418
Auld, B. A., 796
Avocado, Phytophthora root rot of, resistance to, quantitative analysis, 882
Azalea, Phytophthora root rot, fungicide treatment effect on survival, 635
Bachi, P. R., 761
*Balaxillus subtilis*, on maple seedlings, survival for two years, 608
Balsam fir, root and butt rot of, 615
Banik, M. T., 857
Barbara, D. J., 974
Barley
- black chaff of, heat treatment for eradication, 816
- net blotch, virulence spectrum of isolates in Mediterranean, 230
- root rot, imazalil seed treatment for, 246
- spot blotch and resistance genetics, 207
Barley yellow dwarf virus
- on cereals, in California, 111
- importance in Morocco, 291
Barnes, J. S., 671
Barrows-Broadus, J., 1002
Barta, D. J., 81
Barthe, G. A., 168
Bartz, J. A., 505
Bean calico mosaic virus
- on bean germ plasm collections, genetic diversity, 911
- new bean disease, whitefly-transmitted, 81
Bean pod mottle virus, on soybean, distribution in Kentucky, 132
Beaupre, C. M.-S., 614
Bean curly top virus, pseudo-curl top virus compared to, serology, 17, (19)

Beet necrotic yellow vein virus, on sugar beet, fumigation for control, 31
Beet western yellows virus, on *Brassica*, resistance, 327
Beltrá, R., 615
*Bemisia tabaci*, on bean, bean calico mosaic vector, 81
Bennett, G. A., 304
Benson, D. M., 635
Bentgrass (see also Turfgrass)
- nematodes of, spatial distribution, in Kansas, 660
- Tephra blight and pink snow mold, fungicides for, 667
Bentz, S. E., 44
Berggren, G. T., 158, 485, 501, 614
Bergstrom, G. C., 530
Bernard, E. C., 757
Berner, D. K., 158, 614
Bertaccini, A., 40
Bertrand, P. F., 698
Biddle, J. A., 908
Biever, K. D., 327
Biggs, A. R., 280
Biological control
- *Alternaria angustiovoidea* for leafy spurge, 601, (603)
- *Chondrostereum purpureum* for *Prunus serrata*, risk analysis, 189, (189)
- *Colletotrichum* and *Phomopsis* for *Xanthium*, mycoherbicide, 796
- *Debaryomyces Hansenii* for mold and sour rot of citrus, postharvest, 134
- *Macrophomina phaseolina* for *Hydrilla*, 1035
- hizobacteria for *Pythium*, bio-priming seed treatment, 368
*Bipolaris* spp. (see also Cochliobolus)
- *B. sorokiniana*, on barley: imazalil seed treatment for, 246; resistance genetics, 207; on wheat, forage production effect, 982; on wheat, tillage effect, 1006
- *B. urochloae*, on pearl millet, leaf spot in Zimbabwe, 931
- *B. zeicola*, on corn, new pathotype, 530
Birch, dieback and decline, in Ontario, 331
Bishop, A. L., 692
Bjarko, M., 816
Black, L. I., 69, 1016
Black, M. C., 913
Blackberry, gray mold, benomyl-resistant strains, 331
Blanchette, R. A., 196
Blazquez, C. H., 589
Blueberry (see also Turfgrass)
- mummy berry incidence, pruning method, 199
- postharvest fungi on fruit, 285
Bluegrass (see also Turfgrass)
- summer patch, first report in Ohio, 252
- tiller and rhizome growth, smut of, 886
Bluestem, leaf spot disease of, 442
Bockus, W. W., 238
Bomman, J. M., 306
Bonn, W. G., 711
Brodovsky, D., 1006
Borth, W. B., 434
Bosque-Perez, N. A., 372
*Botryosphaeria obtusa*, on apple, fungicides for, 1029
*Botrytis* spp.
- *B. cinerea*: benomyl-resistant strains, frequency on blackberry in Oregon, 331; on sugar beet, resistance, 353
—*B. squamosa*, on onion, fungicides for, efficacy, 235
Bottalico, A., 415
Bowers, J. H., 771
*Brachiaria humidicola*, rust of in South America, 720
Bradbury, J. F., 81
Brammall, R., 1037
Brasher, B. S., 828
Braun, E. J., 908
*Bremia lactucae*, metalaxyl insensitivity on lettuce in Florida, 61
Brenneman, T. B., 277
Brink, G. E., 51
Briansky, R. H., 168, 297, 863
Brome grass, head smut of, first report in Saskatchewan, 615
*Bromus willdenowii*, powdery mildew of, occurrence in New Zealand, 828
Brown, G. E., 927
Brown, J. K., 81, 720
Brown, P. R., 581, 584
Brown, W. L., 828
*Buchloe dactyloides*, leaf smut of, in Texas, 80
Buddenhagen, I. W., 372
Bugbee, W. M., 353
Bulger, M. A., 514
Burke, D. W., 720
Burnett, P. A., 525
Burns, B. S., 604
Burpee, L. L., 687
Burton, G. W., 331
Cabaquatan, P. Q., 695
Cabrera, I., 80
Cadet, P., 962
Calwell, R. W., 304
Callan, N. W., 368
Calvert, L. E., 648
Campbell, C. L., 241, 874
Campbell, L. G., 353
Campbell, R. N., 889, 894
Canola, black leg in, Kentucky, 938
*Capsicum annuum* —bacterial spot, three new races in Taiwan, 252
—Phytophthora blight, survival factors in soil, 771
—serrano golden mosaic virus on, whitefly-transmitted, 720
Carling, D. E., 860, 901
Carnation, acid fog injury, 310
*Carpophilus* spp., *Mucor piriformis* vector, on peach fruit, 287
Carrot —leaf blight, cover photo, June —scab, in Michigan, 1037
Caruso, F. L., 660
Casper, D. H., 555
Cassava, mosaic virus, etiology and control, 404
Castano, M., 648
Castillo, S., 77
*Celtis lanatus roseus*, chrysanthemum yellows epiphytanclike organisms of, detection with dot hybridization and blot analysis, 40
*Centrosema* spp., leaf spot of, *Cylindrocladium* cause, 935
—*C. pubescens*, soybean mosaic virus on, seed transmission, 648, (649, 650)
*Cephalosporium gramineum* —inoculum in infested residue, host genotype effects, 238
—on wheat, resistance related to strawbreaker resistance, 852
*Cercospora zebrina*, on white clover, host range and cultural characteristics, 874
*Cercosporidium personatum*, on peanut, fungicide and irrigation factors, 277
Cerkaukas, R. F., 1037
Cervantes, L. A., 577
*Chaetosiphon fragaefolii*, strawberry mottle virus vector —aphid numbers related to virus incidence, 365
—from *Chenopodium*, 320
Chakraborty, S., 379
Chalutz, E., 134
*Chamaecyparis nootkatensis*, decline of, symptoms and fungi associated, in Alaska, 267, (271)
Chang, C. A., 593
Chang, R. J., 1037
Chapman, M. A., 81
*Chenopodium quinoa*, strawberry mottle virus on, transmission to strawberry, 320
Cherry —sour, blossom blight control with fungicides, 808
—sweet: canker and dieback, etiology in Washington, 430; Cytospora and bacterial cankers, control in Oregon, 577
Cherry laurel, bacterial leaf spot of, in Spain, 615
Chestnutt, N. E., 577
Chickpea —Ascochyta blight, resistance patterns in races, 127
—Pythium seed rot and damping-off, control in western USA and Spain, 563
—virus disease of, epidemiology in California, 372
Chingombe, P., 931
Cho, J. J., 211
*Choanephora infundibuliformis*, on soybean, leaf blight in Louisiana, 614
*Chondrostereum purpureum* —biocontrol agent for *Prunus serotina*, 189, (189)
—on birch, decline in Ontario, 331
Christensen, C. M., 985
Chrysanthemum —acidic fog injury, 310
—petal necrosis, cover photo, April
—yellow disease, cover photo, January
*Chrysanthemum* spp., *chrysanthemum* yellows on, dot hybridization and blot analysis, 40
*Circulifer tenellus*, on radish, virescence agent transmitted by, 252
Citrus —bacterial spot of, detection using entrapment immunofluorescence, 863, (866)
—blight, protein association, 168
—canker and bacterial spot of, cultivar-specific interactions of strains, 753
—green and blue mold and sour rot, postharvest biocontrol, 134
—Phytophthora foot rot, rootstock resistance, method, 66, (67)
—*Phytophthora parasitica* virulence to, 138
—Phytophthora root rot of: irrigation effect, 21; tolerance in chlamydomospore-infested soil, 743
—postharvest diseases, imazalil application and factors, 927
*Citrus reticulata*, *Alternaria alternata* on, fruit rot and mycoctyces, 415, (416)
Citrus tristeza virus, strains of, inclusion bodies produced, seven hosts, 297
Civerolo, E. L., 863
Clark, C. A., 151
Clark, L. E., 1006
*Clavibacter michiganense* —on corn, seed transmission, 908
—on four-o'clock, hypersensitivity induced, 58
—on wheat: cover photo, December, in Illinois, 1037
Elements, S. J., 365
Clerjeau, M., 120
Clover, white —Cercospora leaf and stem disease, host range and cultural characteristics, 874
—root-knot of, 1037
*Cochliobolus* (see also *Bipolaris*) —*C. sativus*, on wheat, relation to other diseases, cultivars, 224
Coconut, red ring of, cover photo, May
Coffey, M. D., 690, 882
Cohen, S., 248
*Colesia* spp., viroid from in, Brazil, 80
*Colletotrichum* spp., on strawberry, variation, 69, (73, 74)
—*C. acutatum*, on strawberry, detection and survival in soil, 161
—*C. fragariae*, on strawberry, resistance factors, 1016
—*C. gloeosporioides* on mango, blotch minor association in micronisia, 253; on *Styloanus cubra*, leaf wetness effect, 379
—*C. orbiculare*, on *Xanthium* spp., pathogenicity and biocontrol, 796
Comstock, J. C., 530
Conner, R. L., 224
Conti, M., 40
Converse, R. H., 320, 814
Cook, A. A., 309
Cooksley, D. A., 180
Corn —*Aspergillus* and *Fusarium* on kernels of, 627
—*Aspergillus flavus* and *A. parasiticus* on, relative aggressiveness, 978
—*Aspergillus glaucus*, moisture content effect, blends, 985
—*Bipolaris zeicola* on, new pathotype, 530
—*Clavibacter michiganense* on, seed transmission, 908
—*Fusarium moniliforme*, on ears and stalks, inoculation methods, 952
—Gibberella ear rot of, mycoctyces changes in storage, 304
—leaf spot, race 1, cover photo, November
—northern leaf blight, gene *Hil* predominance, 530
—root diseases and yield decline, soil fungus populations, 704
—sweet: *Pythium* damping-off, biocontrol for, 368; seedborne *Penicillium* of, seedling blight factors, 36; sorghum downy mildew of, in Illinois, 183; Stewart's wilt, rating and maturity relation, 792
Corax kousa, anthraceos of, resistance, 828
Cotton —aflatoxin contamination of seed, atoxigenic strain effect, 233
—*Pythium*, metalaxyl, and mycorrhizal relation, 117
—seedling damping-off, incidence and etiology in Spain, 597
Cotty, P. J., 233
Cover color photo —blueberry red leaf, December
—buffalograss leaf smut, January
—carrot leaf blight, June
—Centrosema leaf spot, November
—chrysanthemum, peuc necrosis, acid fog effect, April
—chrysanthemum yellows disease, January
—coconut, red ring of, May
—*Colletotrichum* gloeosporioides on *Styloanus cubra*, May
—corn leaf spot, November
—cucumber leaf spot, March
—*Cylindrosporum quercinum*, oak leaf spot, August
—cypress, canker of, April
—Dodonaea viscosa, yellows disease on, June
—escarole, virus necrosis, May
—Fusarium moniliforme on lobolly pine, January
—Gymnoconia nitens on blackberry, April
—Gymnosporangium clavige on hawthorn, August
—impatiens foliar blight, bacterial, February
—lettuce corky root, December
—mandarin, gray heart rot, June
—mango, anthracnose of, July
—Mucor piriformis, on Asian pear, August
—mustard leaf blight, October
—oak leaf scab gall, November
—oats, crown rust of, August
—odontoglossum ring spot virus, on Cymbidium, September
—Phellinus robustus, on almond, May
—pine fusiform rust, December
—pine seedling root rot, March
—Plantospora lactuceae-radicis on lettuce roots, February
—Pucciniasstrum hydrangeae, on hemlock, July
—raspberry, late yellow rust, September
—Rhizoctonia solani on soybean, February
—Rhynchosporum inndula, smut of, July
—Sclerotinia sclerotiorn: on sweet pepper, June; on winged bean, July
—sorghum downy mildew, on sweet corn, February
—soybean, sudden death syndrome, October
—Stigmina platani on sycamore, September
—Synchytrium desmodii on Desmodium, September
—Tubakia dryina, on oak, August
—turmeric leaf spot, October
—watermelon fruit blotch: January, April
—wheat bacterial mosaic, December
—wheat bacterial sheath rot, November
—wheat glume blotch, October
—wheat streak mosaic virus, on wheat, March
—Xanthomonas campestris on Lobelia, March
—Covey, R. P., 711
—Cowpea, Macrophoma infection of, mechanism, 720
—Craberry, Phytophthora root rot and dieback, in Massachusetts, 644, 665, 666
—Cricotina mutabile, bacterial canker associaton, on apricot, 394
—Cronienella xenopalax, on small grain and field crops, host suitability, 698
—Crinellera perniciosa, basidiocarp in mycelial mats, 493
—Cronartium spp.
—C. quercuum: on lobolly pine, cover photo, December; resistance, 1013
—C. ribicola, on white pine, in New Mexico, 938
—Crucifer, green manure from, pea root rot affected by, 651
—Cruz, F. J., 80
—Csinos, A. S., 671, 1025
—Cucumber, leaf spot
—cover photo, March
—in host range of pathogen, 227
—Urocladium cause in New York, 824, (825)
—Cucumber mosaic virus
—in groundnut, 151, (152)
in muskmelon, determination by ELISA correlated with aphid transmission, 857
—strain from China, associated satellite of RNA, 818, 819, (821, 822)
—Cylindrocladium spp.
—C. colhounii on Centrosema spp., leaf spot, 935, (936); cover photo, November
—C. crotalariae, on peanut, fumigants for, 438, (441)
—C. scoparium, on guava, storage disease,
Fumigation
—in corn, for soilborne pathogens, 704
—sugar beet rhizomania controlled by, 31
Fungicides (general) (see also Fungicides, specific)
—on apple, for Botryosphaeria obtusa, activity, 1029
—on azalea, landscape survival from Phytophthora root rot, 635
—ethylene bisdiethylcarbamate, loss of, impact of, 829
—management, Monilinia fructicola on cherry, 280
—metalaxyl resistance in Pythium, fosetyl-Al resistance induced, 690
—on peanut, tillage and crop effects, 1025
—postinfection and aniloplarol activities
—of, for cherry blight, 808
—Rhzodictyota limb rot of peanut, control factors affecting, 671
—Rhzodictyota solani sensitive to, 860
—seed treatment, wheat root rot, take-all, and eyespot, 782
—soilborne pathogens in forest nursery, management, 195
—statistical procedures, use of microcomputer utilities, 333
—on turfgrass, relation to endophyte and nematodes, 879
Fungicides (specific) (see also Fungicides, general)
—benomyl, Botrytis cinerea resistant to, in Oregon, 331; tomato crown and root control, 996
—chlorothalonil, for peanut diseases, irrigation effect, 277
—dicarboximide, for onion leaf blight control, efficacy, 235
—dimethomorph, grapevine downy mildew, 114
—fluotolalan and toledolol-methyl, on wheat root and culm diseases, 788
—imazalil: barley seed treatment for root rot, 246; for citrus fruit decay, postharvest application, 927; wheat seed treatment, forage yield, 982
—metalaxyl: lettuce downy mildew insensitive to, 81; mycorrhizal colonization affected by, 117; white rust of spinach control, 913
—propiconazole and triadimefon, dollar spot suppression by, in creeping bentgrass, 687
—thiabendazole, Helminthosporium solani resistant to, 614
Funt, R. C., 638
Fusarium spp.
—F. acuminatum, on horseradish, root rot complex, 391
—F. moniliforme: on corn, kernel infection, 627; on corn ears and stalks, inoculation methods, 952; on loblolly pine, Cotyledonary blight, cover photo, January
—F. oxysporum: on muskmelon, yield, disease, and root colonization, 778; on tomato, root colonization from, 894, 896; tomato crown and root rot, benomyl disease management, 996; tomato crown and root rot, in New Brunswick, 1037; tomato crown and root rot pathogen, host range, 569
—F. proliferatum, on asparagus, etiology, 938
—F. solani on bush snap bean, genetic and cultural control, 61
—F. subglutinans: on loblolly pines, seed colonization, 1002, (1004); on loblolly pines, in Japan, 530
Gabor, B. K., 882
Gabriel, S. A., 132
Gaulemannomyces graminis, on wheat, fungicide seed treatments, 782
Galletta, G. J., 1016
Garcia, C., 676
Gardiner, M. L., 792
Gartner, D. E., 434
Garten, R., 81
Gascho, G. J., 704
Gawazay, W. S., 615
George, M. W., 394
Gerlach, W. P., 252
Gerlachia oryzae, on rice, resistance, 306
German, T. L., 273, 843
Gibberella zeae
—on corn ears, mycoxylon production, 304
—on wheat, scab, quality measurements, 959
Gilbertson, R. L., 322
Gitzitidis, R. D., 58
Glassmann, J. C., 306
Glennon, M. L., 828
Glomerella cingulata, on bean, first report in Ontario, 394
Glomus intraradices, on cotton, onion, and pepper, metalaxyl and Pythium effect, 117
Golden, A. M., 1037
Golino, D. A., 252
Gonsalves, D., 154, 819
Gordon, T. R., 778
Gossen, B. D., 615
Gottwald, T. R., 753
Gould, A. B., 203
Graham, J. H., 743, 753
Grape
—black rot of, fungicide spray program and forecasting, 638
—postharvest decay, sulfuron dioxide fungicide for, 418
—tomato ringspot and tobacco ringspot viruses on, in Pennsylvania, 702
Grapevine, downy mildew—dimethomorph efficacy for, 114
—severity prediction, 120
Grapevine virus A, detection of two strains, 896, (899)
Grau, C. R., 164
Graves, B., 899
Gray, F. A., 668
Greathead, A. S., 584
Greer, G. D., 690
Griesbach, J. A., 111
Griffin, D., 989
Gross, D. C., 430
Groth, J. V., 406
Guava, storage disease of, new, 253
Guayule, charcoal rot of, in Arizona, 219
Gubler, W. D., 161
Gudanovskis, R. T., 615
Gusinaria bidwilli, on grape, disease forecasting and spray programs, 638
Gulya, T. J., 721
Gwinn, K. D., 757
Gymnosporangium nihis, on wild blackberry, cover photo, April
Gymnosporangium clavipes, on hazelnut, cover photo, August
Hagan, A. K., 615
Hagedorn, D. J., 322
Haff-Mei, A. J., 36
Hall, B., 114
Hall, T. J., 44, 608
Hammond, J. J., 385
Hams, F., 615
Han, J., 263
Hannusch, D. J., 683
Hansen, E. M., 267
Hansen, M. A., 183
Hanson, L. E., 1037
Harding, J. S., 309
Harrabi, M., 230
Harrington, T. C., 615
Harris, C. M., 418
Hartman, G. L., 252
Hartsell, P. L., 418
Harvey, J. M., 418
Hawk, J. A., 792
Hawksworth, F. G., 938
Haygood, R. A., 81, 510
Helicocytlencha pseudorobustus, on tall fescue, endophyte infection, 757
Helm, D. J., 860
Helminthosporium solani, resistance to thiabendazole, 614
Henderson, L. J., 683
Hendrix, J. W., 761
Henon, P. E., 267, 316
Henson, D. J., 418
Henson, G., 761
Hepp, R. F., 320
Herrmann, T. J., 246
Hershman, D. E., 132, 761, 938
Heterobasidion annosum, on eastern white pine, ozone relation, 552
Heterodera glycines, on pearl millet, in Niger, first report, 938
Heun, M., 747
Hewings, A. D., 844, 992, 1037
Hewitt, B. G., 168
Hibben, C. R., 604, 828
Hibino, H., 695
Hill, J. H., 56, 291
Hill, R. R., 680
Hirrell, M. C., 252
Hodges, C. F., 886
Hoffmann, G. M., 731
Holcomb, G. E., 720, 828
Holmes, F. W., 828
Holtzmann, O. V., 837
Holub, E. B., 164
Hook, J. E., 671, 704
Hooker, A. L., 530
Hoplolaimus magnisutatus, on kenaf, first report in Mississippi, 828
Horne, E. W., 80
Horton, J. L., 668
Hosford, R. M., Jr., 385
Hus, H. T., 695
Hus, I. W., 824
Huang, H. C., 766
Huang, J. W., 27
Huang, P.-Y., 522
Huff, D. R., 80
Hunger, R. M., 336
Hunt, D. W. A., 81
Hydrangea, rust of, cover photo, July
Hydrilla verticillata, biocounter, 1035
Hyphomida aspera, on spruce and balsam fir, root and butt rot by, 615
Impatiens, crown rot of, control, 77
Impatiens, foliar blight, bacterial cause, 180, (181)
Ingram, D. M., 563
Instructions to authors, 88
Irey, M. S., 683
Iuchi, R. J., 604
Jacobson, D. J., 778
James, D., 898
Janse, J. D., 252
Jesperson, G. D., 615
Jinko, J., 549
Jimenez-De la Serna, R. M., 597
Jochimsen, K. N., 581
Johnson, A. W., 704
Johnson, D. A., 413, 430
Johnson, D. R., 391, 601
Johnson, D. W., 132
Johnson, E. L. V., 117
Johnson, K. B., 331
Johnsongrass mosaic virus, on oat and sorghum, virus differentiation, 549
Johnston, S. A., 771

Plant Disease/December 1990
Jones, J. B., 300, 528
Jones, O. R., 1006
Jordahl, J. G., 385
Jordan, R. L., 255
Jouardain, E. L., 868
Joye, G. F., 158, 1035
Joyner, T. G., 333
Jung, G. A., 828
Kabushima, J., 655
Kaiser, W. J., 563, 911
Kamel, A., 230
Kandler, O., 4
Kearney, C. M., 819
Keller, N. P., 530
Kemp, G. H. J., 631
Kenaf, lance nematode on, first report in Mississippi, 828
Kimmons, C., 757
Kirkpatrick, B. C., 252
Kitajima, E. W., 80
Klein, R. E., 911
Klepper, E. L., 782
Ko, N.-J., 621
Koch, C., 569
Koganezawa, H., 610
Kohli, M. M., 488
Koike, S. T., 180
Kozub, G. C., 766
Kraft, J. M., 716
Krupinsky, J. M., 442
Krusberg, L. R., 879
Kuhlman, E. G., 27, 1013
Kunkel, T. E., 913
Lacy, M. L., 1037
Lambert, D. H., 199, 285
Latic, R. F., 83, 183, 331
Lawrence, G. W., 828
Lazarides, E. D., 720
Leath, K. T., 680, 828
Leath, S., 747
Lee, J.-M., 40
Lee, R. F., 297, 863
Lee, R. R., 168
Leiner, R. H., 860, 901
Leininger, T. D., 552
Lenné, J. M., 676, 720, 935, 945
Leonard, K. J., 966
Leptographium wageneri, on ponderosa pine, ozone stress effect, 426
Leptosphaeria maculans, on canola, in Kentucky, 938
Letters
—disease assessment and product performance reporting, standardization, 401
—withering plant disease epidemiology, 82
Lettuce
—bacterial stem rot, in Ontario, 394
—corky root of: cover crop and ammonium nitrate effect, 584; in Florida, 394; host range, 581; soil fumigation for, 1022
—downy mildew of: fungicide control, 829; metalaxyl insensitivity, 81; pathogenesis, 173, 174
—root rot, hydroponics, 1037
—tomato spotted wilt virus of, disease prediction and models, 211
Linde, A. R., 1037
Linderman, R. G., 141
Lino, R. F., 739
Litula macrosora, on Sitka spruce, sporulation in Alaska, 316
Lister, R. M., 974
Lobellia erinus, leaf blight and dieback of, new bacterial disease, 252
Lockhart, B. F., 530
Logregno, A., 415
Lohweg, E., 252
Long, D. L., 555
Longenecker, J. L., 702
Lorbeer, J. W., 235
Loria, R., 614
Lund, R. E., 816
Lynch, K., 1037
Maclel, A., 655
MacDonald, J. D., 556
Mackill, A. O., 306
Macrosporina phaseolina
—on cowpea, external infection mechanism, 720
—on guayule, in Arizona, 219
—host range addition, 828
—on Hydrilla, biocontrol, 1035
—in soil, cropping system effect, 812
Madden, L. V., 638
Magnaporthe spp.
—M. poae, on bluegrass, first report in Ohio, 252
—M. salvini, on rice, resistance screening in California, 54
Main, C. E., 1009
Maize (see Corn)
Maize dwarf mosaic virus
—on oat and sorghum, virus differentiation, 549
—in sweet corn: drought stress effect, 147; resistance, 359
Maloy, O. C., 183
Mandarin, gray heart rot of, cover photo, June
Mangifera indica. Phyllththora root and crown rot, in USA, 530
Mango, anthracnose of
—blotch miner association in micronesia, 253
—cover photo, July
Maple
—Bacillus subtilis on seedlings of, survival, 608
—Norway, Verticillium wilt variation in cultivars, 44
Maria, H., 932
Marcinkowska, J., 716
Marshall, P. T., 604
Martin, F. N., 31
Martin, J. M., 246
Martin, R. R., 514
Martin, S. B., 510
Matejka, J. C., 138, 530
Mateo-Sagasta, E., 615
Matheron, M. E., 138, 530, 1037
Mathishton, J. T., 982, 1006
Matthre, D. E., 368
Matteoni, J. A., 81, 604
Mau, R. F., 274
May, D. M., 778
McCain, A. H., 646
McCain, J. W., 496
McCool, P. M., 310
McCreight, J. D., 686
McDaniel, L. L., 17
Mc Gee, D. C., 908
McKay, F. J., 379
McKenry, M. V., 394
McLaughlin, J. A., 331
McLaughlin, M. R., 51
McLean, K. S., 828
McMillan, M. S., 80
McVey, D. V., 966
Meler-Kara, J. M., 597
Meloidogyne spp.
—M. graminicola, on white clover, in Mississippi, 1037
—M. incognita, on kiwifruit, in South Carolina, 81
—M. marylandi, on tall fescue, reproduction, 757
Meloux, H. A., 216
Menge, J. A., 21, 117
Menzies, J. G., 569
Merida, C. L., 614
Meronuck, R. A., 985
Mesina, E. M., 923
Michaileides, T. J., 287, 537
Michelmore, R. W., 81
Microdochium riale, on turfgrass, fungicides for, 687
Mierutals mallevlora, pseudo-curly top virus vector, serology, 17
Mihuta-Grimm, L., 996
Mihail, J. D., 219
Miles, G. E., 83
Miles, M. R., 207
Milholland, R. D., 522
Miller, J. B., 368
Miller, J. F., 721
Miller, R. W., 81
Miller, T. L., 313
Mills, L. J., 61
Minton, N. A., 1025
Mirabilis jalapa, Clavibacter michiganensis on, hypersensitivity, 58
Mitchell, J. K., 252
Mitchell, J. R., 83
Mitchell, W. C., 211
Models
—threshold decision, epidemic control of Septoria on wheat, 731
—tomato spotted wilt virus of lettuce, prediction, 211
Monette, P. L., 898
Mooninita spp.
—M. fructicola: blossom blight control with fungicides, 808; on cherry, fruit susceptibility, 203
—M. vacinii-corymbosi, on blueberry, pruning method effect, 199
Monocolonial antibodies, rice grassy stunt virus detected by, 695
Moraes, F. J., 648
Morgan, L. W., 1025
Morton, V., 401
Moss, M. A., 573, 800
Mtisi, E., 931
Mucor puriformis
—on Asian pear, cover photo, August
—on pome and stone fruits, postharvest disease in Pacific Northwest and California, 537, 538, 539, 541, 542
Muehlbauer, F. J., 716
Muehleh, A. M., 651
Mueller, A. E., 687
Mullen, J. M., 615
Munkvold, G. P., 518
Muramoto, C. M., 530
Murphy, J. F., 359
Murphy, J. P., 47
Murray, T. D., 183
Muskelman
—Alternaria leaf blight of, resistance inheritance, 668
—cucumber mosaic virus of, titer determination and aphid transmission, 857
—disorders of, system for diagnosing, 83
—Fusarium wilt of, yield, disease incidence, and root colonization, 778
Muselman, R. C., 310
Mustard, leaf blight of, cover photo, October
Mycoplasmalike organisms
—ash yellows, geographic range and decline, 604
—chrysanthemum yellows, dot hybridization and blot analysis for detection, 40
Myccorrhizae, white pine, fungicide effect, 195
Mycolephora dendroides, on peach, gas exchange effect, 203
Mycoptoxins
—aflatoxin, on corn, in Mississippi, 978
—Alternaria on mandarin, 415
—deoxynivalenol, wheat scab, 959
—trichothecenes and zearalenone, in corn, Gibberella ear rot association, 304

Nagata, R. T., 394
Nameth, S. T., 183, 255
Naudé, S. P., 530
Ndunguru, B. J., 938
Nectria fuscata, on white fér, canker in California and Oregon, 178
Neely, D., 518
Nelson, D. A., 80
Nelson, L. R., 183
Nelson, M. R., 81
Nelson, S. C., 874
Nematicides, fenamiphos, role in corn yield decline, 704
Nematodes
—control in Hawaiian crops, changing agricultural system, 837, (838-840)
—on corn, yield decline role, 704
—on creeping bentgrass putting greens, spatial distribution, 660
—on turfgrass, fungicide relation, 879
Nene, Y. L., 812, 828
Nicholls, T. H., 54
Nielsen, M. T., 313, 956
Niissen, A. I., 648
Nikandrow, A., 796
Northeast, J. C., 280
Nus, J. C., 886
Nycezip, A. P., 698

Oak, silk-button spangle gallis on leaf of, cover photo, November
O’Brien, R. D., 1022
Octium basilatum, chlorosis, physiological disorder in CO₂ atmosphere, 171, (172)
Odontoglossum ringspot virus
—cover photo, September
—on orchids, control, 621
Ogawa, J. M., 341, 538
Olexa, M. T., 108
Olson, A. J., 147
Onion
—Botrytis leaf blight, control with fungicides, efficacy, 235
—internal decay, Enterobacter cause, 692, (693)
—Pythium, metalaxyl, and mycorrhizal relation, 117
Orchids, viruses of, control, 621, (621, 622, 624)
Orum, T. V., 219
Oster, J. J., 545
Ostry, M. E., 54
Ott, S., 788
Ozmon, E. A., 496
Ozone (see also Air pollution)
—ponderosa pine stressed by, black stain effect, 426
—white pine affected by, root disease incidence, in North Carolina, 552
Padgett, G. B., 614
Palmer, M. A., 195
Papavizas, G. C., 771
Parke, J. L., 651
Parnem, J. R., Jr., 178
Parsley, Septoria blight, Ontario, 1037
Pasture pathology, tropical, 945, (946, 947, 949, 950)
Pataky, J. K., 147, 183, 359, 792
Pataky, N. R., 83
Pauly, M. H., 792
Pea, Aphanothecaceae root rot of, green manure effect, 651
Pea, Muscor purpureus on fruit of, insect transmission, 287
Peanut
—Glycine radiculamus black rot, soil fumigants
—for, 438, (441)
—diseases and yields: irrigation and fungicides affecting, 277; pesticides and tillage effects, 1025
—Rhizoctonia limb rot of, control factors affecting, 671
—Rhyzium blight, seed transmission, 216
—treated with wilt virus of, in Alabama, 615
Peanut stripe virus, two strains in Taiwan, comparison, 593, (594)
Pear, black spot of, in Greece, new disease, 720
Pecan, leaf blotch, gas exchange affected by,
Penicillium spp.
—P. digitatum, on citrus fruit, imazalil for, control, factors, 927
—P. oxalicum, on sweet corn, seedling blight factors, 36
Pennisetum glaucum
—brown leaf spot of, in Zimbabwe, 931
—downy mildew and rust of, resistance sources, 871
—Heterodera aspera, on first report in Georgia, 938
—Phytophthora nicotianae on, first report in USA, 331
Pepper, Pythium, metalaxyl, and mycorrhizal relation, 117
Perceptions, A. J., 391
Peronosporora spergula on sweet corn, in Illinois, 183
Pesticides
—changes, symposium, 103
—risk, decision making, symposium, 105
Peterson, J. L., 77
Pseudoisca vulgaris
—anthracnose, first report in Northern California, 394
—common bacterial blight, survival and growth in debris, 322
—Fusarium root rot, genetic and cultural control, 61
—gumplasm medium, common bean mosaic virus incidence in, genetic diversity, 911
—southern bean mosaic virus on, in Nicaragua, first report, 938
Pheilus robustus, basidiocarp on almond, cover photo, May
Phipps, P. M., 438
Phoma spp.
—Phoma betae, on sugar beet, resistance, 353
—Phomopsis medicaginis: on alfalfa roots, pathogenicity, 680, (681, 682); isolate variation, symptom expression on alfalfa, 668
—Phomopsis sp., on Xanthium spp., pathogenicity and biocontrol, 796
—P. auburnensis, on strawberries, outbreak in Connecticut, 331
—Phytophthora spp., on ornamentals, detection using ELISA and culture plates, 655
—P. cactorum, on apple rootstocks, necrosis in stool beds, 141
—P. cambivora, on apple rootstocks, necrosis in stool beds, 141, (143)
—P. capsici, in soil, survival factors, 771
—P. cinamomoni: on avocado, resistance, quantitative analysis, 882; on azalea, fungicide treatment, landscape survival, 653; on cranberry, root rot and dieback in Massachusetts, 664, (665, 666)
—P. citrophthora, on citrus: irrigation effect, 21
—rootstock resistance, method, 66, (67)
P. cryptogen, on lettuce, hydroponics, 1033
—on sugar beet, root rot in Wyoming, 614
—P. infestans, on potato, detection by aerial photography, 589
—P. megasperma, on soybean, first report in Virginia, 183
—P. palmivora, on mango, root and crown rot, 530
—P. parasitica: from citrus, effect on lemon and tomato, 138; on citrus, tolerance to clamydaspora-infested soil, 743; on tobacco, resistance detection technique, 3135
Pierce, L., 646
Pilowsky, M., 248
Pine
—bitter rust, in New Mexico, 938
—lobbly, pitch canker, cone colonization, 1002, (1004)
—ponderosa, ozone-stressed, black stain, 426
—red and yellow, Phaeosporium canker of, stress effect, 54, (55, 56)
—seedling root rot of, cover photo, November
—slash: damping-off in Georgia, fungi associated, 27; fusiform rust, field resistance, 969
—white: root disease and ozone injury, in North Carolina, 552; soilborne pathogen of, management in nursery, 195
Pineapple, nematicide control of, in Hawaii, problems in changing agricultural systems, 837
Pinus lamberti, pitch canker of, in Japan, 530
Plant protection, antitranspirant epidermal coatings, use in China, 263
Plasmopora spp.
—P. halstedii, races of, international system for designation, 721
—P. lactuca-radicis on lettuce, pathogenesis, 173, (174-176); on lettuce roots, cover photo, February
—P. viticola on grapevine, dimethomorph for, 114; oospore maturity, infection prediction in grapevine, 120
Pohlers, K., 573, 800
Poinsettia
—basal stem rot, new disease, 828
—stem canker and leaf spot, in Florida, 528, (529)
Polybactenia betae, beet necrotic yellow vein virus vector, on sugar beet, 31
Poschenrieder, G., 252
Postharvest diseases, Penicillium digitatum on citrus fruit, imazalil for control, 927
Postharvest pathology
—blueberry fruit fungi, 285
—corn grain storage, moisture in blends, 985
—grape decay, fungicidal, for, 418
—green and blue mold and sour rot of citrus, postharvest biocontrol, 134
—pome and stone fruits, Muscor cause, in Pacific Northwest and California, 537
Potato
—early blight of, resistance and rotation effect, 849
—Rhizoctonia solani on, plant and soil origin, 901
Poulos, B. T., 720
Powell, C. A., 702, 904
Powell, C. C., 333
Powers, H. R., 1013
Poyser, V., 294
Praetenscherus scribinus, on tall fescue, reproduction, 757
Preterius, Z. A., 631
Prior, P., 13, 902
Proovienski, R., 151, 819, 828
Prunus serotina, biocontrol with

Plant Disease/December 1990 1043
**Chondrostereum purpureum**, risk analysis, 189, (189)

**Pseudocercosporella herpotrichoides**, on wheat—fungicide seed treatments, 782—resistance related to *Cephalosporium* spore resistance, 852

**Pseudocysto-curvy** top virus, serological analysis, 17, (19)

**Pseudomonas** spp.: on rice, characteristics and comparison with *Xanthomonas*, 917; on tomato, stem necrosis, 124—*P. cichorii*: on chrysanthemum, isolation from soil, leaves, and buds, 300; on lettuce, occurrence in Ontario, 394—*P. corrugata*: on tomato, pith necrosis in Massachusetts, 80—*P. fluorescens*: on horseradish, root rot complex, 387—*P. fusca*: on wheat, sheath rot in Mexico, 932, (934)

**P. solanacearum**: on Alexandria palm tree, new host in Australia, 615; strains in French West Indies, characteristics, 13, 962—*P. syringae*: on cherry laurel, leaf spot in Spain, 615; on impatiens, cover photo, February; on *Impatiens*, foliar blight, 180, (181); on mung bean, leaf spot and stem collapse, 394; on sweet cherry, control in Oregon, 577—*P. viridiflava*: on poinsettia, in Florida, 528, (529)

**Puccinia** spp.—*P. coronata*: on oats, cover photo, August—*P. graminis*: races in USA, in 1988, survey, 555; spelt wheats, resistance, 966—*P. meloecephala*: on sugarcane, severity associated with soil factors in Florida, 683—*P. persicae*: on pear millet, resistance sources, 871—*P. recondita*: on wheat, resistance components, 631—*P. striiformis*: races, North America and Europe, cultivar reactions, 739

Pumpkin, zucchini yellow mosaic virus on, not seed transmitted, 828

Purcuflill, D. E., 593

**Pyrenochaeta lycopersici**, on tomato, survival, temperature, and resistance relation, 889

**Pyrenophora** spp.—*P. teres*: on barley, virulence spectrum in Mediterranean, 220—*P. triticarum*: on wheat, factors affecting, 385

**Pylithium** spp.: on chickpea, seed rot and damping-off control in USA and Spain, 563; on ornamentals, detection using ELISA and culture plates, 655—*P. aphanidermatum*: metalaxyl resistance in, fosetyl-Alpha resistance induced, 690—*P. ultimum*: on cotton, onion, and pepper, metalaxyl treatment effect on roots and mycorrhizal, 117; on New Guinea impatiens, control, 77; on sweet corn, biocontrol by seed treatment, 368

Radish, beet leafhopper transmitted by virescence agent, 252

Raid, R. N., 81, 683, 828

Randall, E. E., 222, 654

Randhawa, P. S., 300

Ranc, K. K., 80, 331

Rasmussen, S. L., 81, 173

Rasmussen, D. C., 207

Raspberry, late yellow rust, cover photo, September

Raspberry bushy dwarf virus, transmission and field spread, 514

Ratcliffe, D., 379

Rayworth, D. A., 365

Ray, D. T., 219

Read, J. C., 183

Reddy, M. V., 127, 812, 828

Rehms, R. M., 430

Reno, L. D., 816

Renfro, B. L., 952

Resistant—*alfalfa* to *Aphanoymaphyes* euteiches, specificity, 164—*avocado* to *Phytophthora* root rot, quantitative analysis, 882—barley to spot blotch, 207—*Brassica* to western yellows virus, 327—chickpea to Ascochyta blight, patterns, 127—dogwood to anthracnose, 828—*hysvovariability*: on *Alternaria*, inheritance, 686; to Fusarium wilt, factors, 778—*peanut* to downy mildew and rust, 871—*pine* seedlings to fusiform rust, 969, 1013—rice to *Gerlichia oryzae*, 306; to stem rot, screening method, 545; to tungro virus diseases, 923—spelt wheat to stem rust, 966—*stinkweed* to strawberry, 353—*sweet potato* to Anthracnose crown, 69—*sugar beet* to crown and root rot pathogen, 353—sweet corn to maize dwarf mosaic virus, 359—wheat to leaf rust, components, 631; to root rot, black point, and spot blotch, 224; to *Septoria tritici*, measurement, 488; to wheat soilborne mosaic virus, 356

Rettig, J. C., 83

Reviewer acknowledgment, 90

Rhinhart, K. L., 788

Rhizoctonia spp., on centipedegrass and St. Augustinegrass, characterization and pathogenicity, 510—*R. solani*: AG-3, virulence, potato origin, 901; fungicide sensitivity, binucleate *Rhizoctonia* comparison, 860; on New Guinea impatiens, control, 77, (78); on ornamentals, detection using ELISA and culture plates, 655; on peanut, control factors affecting, 671; on peanut, fungicide and irrigation factors, 277; on soybean, aerial blight, cover photo, February; on soybean, anthracnose group I, 501, (502); on soybean, resistance, 353; on soybean, row spacing and plant population effect, 158; on soybean, seedling blight, AG-1, 485, (487); on sugar beet, previous crop effect, 421; on wheat, fungicide seed treatments for, 782

Rhzomonia subfuscans*, on lettuce—*cover crop* and ammonium nitrate effect, 554—*cover photo*, December—*host range*, 581—*in Florida*, 394—*soil fumigation*, 1022

Rice—*grain discoloration* and sheath rot, *Pseudomonas* characteristics and epiphytes, 917—*leaf scald*, resistance to, 306—*stem rot* resistance, screening for in California, 545

Rice, D. J., 279

Rice grassy stunt virus, detection using monoclonal antibodies, 695

Rice tungro spicular virus, tungro viruses compared to, 923

Ries, M. S., 1037

Rizzo, D. M., 615

Roberts, D. E., 852

Roberts, J. F., 555

Rodriguez, R., 680

Roelfs, A. P., 555

Rose, rosette disease, dsRNA association, 56

Rowe, R. C., 996

Rutley, R. C., 47

Ruhl, G. E., 183

Rush, C. M., 421, 982, 1006

Ryegrass, endophyte infection, 183

Sackston, W. E., 721

Sands, P. L., 690

Sands, D. C., 816

Santos, Y., 880

Sardinelli, S., 879

Sasser, M., 300

Sauer, D. B., 985

Saunders, J. A., 81

Schaffer, B., 573

Scheepens, P. C., 189

Scheneck, S., 837

Schenk, J., 800

Schettini, T., 81

Schmidt, R. A., 969

Schreiber, R. L., 44

Schreiner, I. L., 253

Schroth, M. N., 646

Schultz, M. E., 178

Schwartz, H. F., 80

Sclerospora graminicola*, on pear millet, resistance sources, 871

Sclerotina spp.—*S. minor*: on peanut, seed transmission, 216—*S. sclerotiorum*: on *Apis amarica* and *Trillium foetidum*, new hosts, 720; on sunflower, cyclic occurrence in Canada, 766; on sweet pepper, cover photo, June; on winged bean, cover photo, July

Scott, G. E., 627, 978

Sepiahi, M., 253

*Septoria* spp.—*S. lycopersici*: on tomato, inoculation method for resistance screening, 294—*S. nodorum*: on wheat, resistance components, diallel analysis, 47; threshold decision model for epidemic control, 731—*S. petroellii*: on parsley, Ontario, 1037—*S. tritici*: on wheat, resistance measurement, 488

Serrano golden mosaic virus, on pepper and tomato, whitefly-transmitted, 720

Setliff, E. C., 331

Seyward, F., 569

Shaffer, J. A., 828

Shane, W. C., 352, 333

Shaner, G., 959

Shantz, C. M., 394

Sharma, S. B., 938

Shaw, C. G., 347

Shaw, D. A., 558

Shaw, M. E., 252

Shefelbine, P. A., 238

Shelby, R., 615

Shennan, C., 584

Sherwood, J. L., 356

Shew, H. D., 1009

Shipp, J. L., 81

Shirkhoff, N., 889, 894

Shirer, R., 615

Shitroenberg, D., 849

Shukla, D. D., 549

Silberegal, M. J., 61

Sinclair, W. A., 604

Sindermann, A. B., 844, 992

Sindermann, A. E., 844

Singh, K. B., 127

Singh, R. P., 80

Singh, S. D., 871, 931

Singh, S. K., 812, 828

Sippell, D. W., 938

Smalley, E. B., 304
Salute to APS Sustaining Associates

This section is designed to help APS members understand more about APS sustaining Associates. Information was supplied by company representatives. Each month different companies will be featured. A complete listing appears in each issue of Phytopathology.

E. I. Du Pont de Nemours & Co. Contact: M. M. Joshi, Stine-Haskell Site, Newark, DE 19711; 302/366-5406. Research and development have been the mainstay of growth for Du Pont since the company was founded in 1802. Du Pont herbicides, insecticides, fungicides, and nematicides are used by farmers in more than 100 countries to protect all major crops, including wheat, rice, and cotton, as well as most fruits and vegetables. Fungicide products are Manzate 200, a broad spectrum protectant fungicide; Benlate, the first fungicide with local systemic and curative action; Curzate, a curative fungicide used in mixtures outside the United States; and Nustar/Punch (DPX-H6573), a highly active, broad spectrum fungicide with systemic and curative activity. Recently, the company has introduced a diagnostic kit for the detection of the eyespot (foot rot) pathogen in cereals.

Fermenta ASC Corporation. Contact: Gary L. Eilrich, Vice President, Technology, 5966 Heisley Rd., Mentor, OH 44061-8000; 216/357-4145. Fermenta ASC Corporation, headquartered in Mentor, Ohio, serves four world business areas: North America, Latin America, Europe/Middle East/Africa, and Asia/Pacific. The Asia/Pacific area includes Australia, New Zealand, and the People's Republic of China. Fermenta brings to the world of agricultural chemicals advanced product development, state-of-the-art manufacturing facilities, and sophisticated marketing techniques to serve a growing global market. These basic capabilities have resulted in a line of superior weed and disease control products like Bravo and Daconil 2787 fungicides that significantly improve the health of turfgrass and ornamental plantings and increase the quality and yields of such crops as peanuts, bananas, wheat, stone fruit, and vegetables. Bravo and Daconil 2787 are supported by a complete toxicology data base and extensive residue studies that demonstrate low dietary and worker exposure. The product meets the negligible risk standard proposed by the National Academy of Sciences. Fermenta is uniquely positioned to respond to promising new opportunities.

Ferry-Morse Seed Company. Contact: Larry Gauthney, P.O. Box 1010, San Juan Bautista, CA 95045. Ferry-Morse Seed Company is a leader in the seed industry because the men and women at Ferry-Morse have a strong commitment to develop, produce, and market new and improved proprietary varieties of vegetables and flowers. By combining new technology with proven techniques that have been earned by Ferry-Morse in their 130-year history, they are able to supply seed to customers in the United States and in over 100 countries. In order to ensure adaptability of their new seed varieties, Ferry-Morse research teams conduct primary research at several of their research stations and supervise seed trials throughout the United States and in many foreign countries. Ferry-Morse is dedicated to developing and producing the best vegetable and flower seeds in the world.

Fundacao Educacional. Ituiutaba Caixa Postal 257, 38300 Ituiutaba MG Brasil.

1990 Advertisers Index

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Covers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Press</td>
<td>Cover 4, No. 2, Cover 2, No. 6, Cover 3, No. 7, Cover 2, No. 9</td>
</tr>
<tr>
<td>Agdia, Inc.</td>
<td>Cover 4, No. 5, Cover 4, No. 6, 12, 350</td>
</tr>
<tr>
<td>American Type Culture Collection</td>
<td>Cover 4, No. 7</td>
</tr>
<tr>
<td>Biolog, Inc.</td>
<td>Cover 2, No. 11, 939</td>
</tr>
<tr>
<td>Blackwell Scientific Publications, Inc.</td>
<td>457</td>
</tr>
<tr>
<td>Cambridge University Press</td>
<td>467</td>
</tr>
<tr>
<td>Chapman &amp; Hall, Inc.</td>
<td>253</td>
</tr>
<tr>
<td>Ciba-Geigy Ltd.</td>
<td>544, 738</td>
</tr>
<tr>
<td>Li-Cor, Inc.</td>
<td>Cover 2, No. 3, Cover 2, No. 5, Cover 2, No. 8</td>
</tr>
<tr>
<td>McGraw-Hill Publishing Company</td>
<td>Cover 2, No. 7</td>
</tr>
<tr>
<td>Van Nostrand</td>
<td>102</td>
</tr>
<tr>
<td>John Wiley &amp; Sons</td>
<td>569, 609</td>
</tr>
</tbody>
</table>