Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.

THE PLANT DISEASE REPORTER

Issued By

Division of Mycology and Disease Survey

BUREAU OF PLANT INDUSTRY

UNITED STATES DEPARTMENT OF AGRICULTURE

Supplement 120

Index to Supplements 112 - 119

December 31, 1939

(Issued December 31, 1940)

The Plant Disease Reporter is issued as a service to plant pathologists throughout the United States. It contains reports, summaries, observations, and comments submitted voluntarily by qualified observers. These reports often are in the form of suggestions, queries, and opinions, frequently purely tentative, offered for consideration or discussion rather than as matters of established fact. In accepting and publishing this material the Division of Mycology and Disease Survey serves merely as an informational clearing house. It does not assume responsibility for the subject matter.

INDEX OF ORGANISMS AND NON-PARASITIC DISEASES

in

THE PLANT DISEASE REPORTER

SUPPLEMENTS 112 - 119, 1939.

Prepared by Nellie W. Nance

Plant Disease Reporter
Supplement 120

December 31, 1939

Supplement 113, "1937 and 1938 additions and corrections to the list of causes of fungous and bacterial plant diseases in Maine," is indexed on pages 22-26.

A

- Actinomyces sp., sweetpotato, 97, 217.
scabies, garden beet, 202.
potato, 100, 236.
radish, 234.
sugar beet, 257.
turnip, 206.
- Adelopus sp., Douglas fir, see
Phaeocryptopus sp.
- Albugo sp., lettuce, 219.
candida, horseradish, 234.
Iberis amara, 280.
radish, 234.
ipomoeae-panduranae, Ipomoea
purpurea, 280.
occidentalis, spinach, 246.
tragopogonis, salsify, 247.
- Alternaria, spp., apple, 27.
cantaloupe, 210.
carrot, 216.
cotton, 249.
cucumber, 31.
eggplant, 235.
geranium, 283.
lemon, 32.
pepper, 207.
plum, 186.
tobacco, 253.
tomato, 35, 36, 37, 39, 102.
wheat, 147.
Zinnia elegans, 289.
- Alternaria brassicae, broccoli, 203.
cabbage, 204.
cauliflower, 203.
turnip, 206.
cucumerina, cantaloupe, 210.
cucumber, 212.
dianthi, carnation, 277.
herculea, cabbage, 204.
cauliflower, 203.
longipes, tobacco, 253.
mali, apple, 173.
solani, eggplant, 235.
pepper, 207.
potato, 100, 237.
tomato, 104, 220, 227.
tomato, tomato, 221.
- Anguillulina agrostidis, Buchloë
dactyloides, 160.
- Anguina tritici, wheat, 149.
- Anthraxnose; hops, 251.
- Aphanomyces cochlioides, sugar beet, 257.
euteiches, pea, 232.
- Aphelenchoides fragariae, begonia, 274.
chrysanthemum, 276.
strawberry, 172.
- Aplanobacter insidiosum, alfalfa, 154.
michiganense, tomato, 103, 104, 224.
stewarti, field corn, 95, 152.
sweet corn, 96, 152.
- Armillaria mellea, apple, 173.

Armillaria mellea, arborvitae, 262.
 Catalpa speciosa, 264
 oak, 267
 prune, 184.
 Arsenical burn, tomato, 36.
 Arsenical injury, apple, 181, 182.
 prune, 184.
Ascochyta spp., green peas, 107, 108.
 pea, 232.
 abelmoschi, okra, 217.
 blights, see also *Mycosphaerella*
 pinodes.
 caulicola, sweet clover, 155.
 gossypii, cotton, 249.
 imperfecta, alfalfa, 153.
 pinodella, pea, 232.
 pisi, pea, 34, 232.
Aspergillus spp., cotton, 249.
 field corn, 150.
 niger, field corn, 150.
 pomegranate, 188.
 popcorn, 152.

B

Bacillus sp., hyacinth, 280
 Lilium sp., 282.
 amylovorus, apple, 114, 179.
 apricot, 184.
 flowering crab, 266.
 mountain ash, 270.
 pear, 112, 189.
 quince, 169.
 raspberry, 192.
 aroidae, tomato, 224.
 carotovorus, cabbage, 206.
 carrot, 217.
 cauliflower, 204.
 celery, 200.
 hyacinth, 280.
 iris, 281.
 onion, 198.
 potato, 241.
 phytophthorus, iris, 281.
 potato, 98, 241.
 sorghum, sorghum, 143.
 tracheiphilus, cantaloupe, 211.
 cucumber, 213.
Bacillus tracheiphilus, squash, 215.
 watermelon, 210.
 Bacterial disease, *Gardenia florida*, 278.
 Bacterial leaf spot, rhubarb, 235.
 Bacterial soft rot, asparagus, 201.
 garlic, 198.
 potato, 34.
 Bacterium, see also *Phytophthora*.
Bacterium spp., begonia, 274.
 cabbage, 29.
 cantaloup, 29.
 carrot, 30.
 cauliflower, 30.
 chicory, 30.
 Dieffenbachia picta, 278.
 lettuce, 32.
 peanut, 249.
 potato, 34.
 viburnum, 288.
 aleuritides, tung-oil tree, 248.
 andropogoni, sorghum, 143.
 Sorghum vulgare.
 sudanense, 163.
 angulatum, tobacco, 111, 255.
 apii, celery, 200.
 aptatum, *Tropaeolum majus*, 288.
 atrofaciens, barley, 139.
 wheat, 10, 148.
 begoniae, begonia, 274.
 berberidis, *Berberis thunbergii*, 274.
 campestre, broccoli, 203.
 cabbage, 206.
 cauliflower, 204.
 rutabaga, 203.
 turnip, 206.
 armoraciae, horseradish, 234.
 cerasi, apricot, 184.
 cherry, 186.
 citri, *Citrus* spp., 169.
 coronafaciens, oats, 136.
 cucurbitae, squash, 215.
 winter squash, 215.
 delphinii, *Delphinium* spp., 277.
 dianthi, carnation, 278.
 erodii, geranium, 283.
 flaccumfaciens, bean, 231.
 glycineum, soybean, 155.
 gummisudans; gladiolus, 279.

- Baetorium hederæ*, ivy, 280.
holcicola, sorghum, 143.
juglandis, Persian walnut, 195.
lachrymans, cucumber, 30, 214.
 pumpkin, 215.
 squash, 215.
maculicola, cauliflower, 204.
malvacearum, cotton, 110, 251.
marginale, lettuce, 220.
marginatum, gladiolus, 279.
medicaginis phaseolicola, bean, 231.
 dry beans, 106.
 green beans, 105.
 lima bean, 228.
mori, *Morus alba tatarica*, 183.
pelargonii, geranium, 283.
 Pelargonium hortorum, 283.
phaseoli, bean, 29, 231, 232.
 dry beans, 106.
 green beans, 105.
 lima bean, 228.
phaseoli sojense, soybean, 155.
pisi, pea, 234.
pruni, apricot, 184.
 cherry, 186.
 peach, 116, 166.
 plum, 187.
 Prunus triloba, 267.
rubrilineans, sugar cane, 258.
rubrisubalbicans, sugar cane, 258.
sepedonicum, potato, 100, 241.
solanacearum, bean, 232.
 eggplant, 236.
 pepper, 208.
 potato, 242.
 tobacco, 255.
 tomato, 102, 224.
sorghii, sorghum, 143.
syringæ, lilac, 287.
tabacum, tobacco, 111, 255.
tardicrescens, iris, 281.
translucens, barley, 139.
translucens undulosum, wheat, 49,
 53, 149.
trifoliorum, *Trifolium* spp., 157.
tumefaciens, apple, 180.
 cotton, 251.
 grape, 194.
 hops, 252.
Bacterium tumefaciens, peach, 166.
 pear, 189.
 pecan, 195.
 plum, 188.
 quince, 169.
 raspberry, 192.
 rose, 285.
 weeping cherry, 285.
vesicatorium, pepper, 34, 208.
 tomato, 225.
vignæ, cowpea, 157.
 lima bean, 228.
 Baldwin spot, apple, see bitter pit.
 Big vein (virus), lettuce, 220.
 Bitter pit (non-par.), apple, 180.
 Black heart, celery, 30, 201.
 pecan, 195.
 leaf speck (non-par.), cabbage, 29.
 leaf spot, magnolia, 266.
 root (undet.), horseradish, 234.
 root rot, strawberry, 117, 172.
 spot (non-par.), garden beet, 202.
 onion, 32.
 Blakemore yellows, strawberry, see
 variegation.
 Blast, *Agrostis alba*, 159.
 oats, 93, 136.
 Blasting (non-par.), iris, 281.
 Blight, hops, 252.
 Blight (undet.), onion, 198.
 Blight (non-par.), phlox, 284.
 Sambucus sp., 270.
 Blossom-end rot, pepper, 209.
 tomato, 36, 103, 104, 226.
 Blotchy ripening (non-par.),
 tomato, 226.
 Blue stem (undet.), potato, 244.
 Bolting, celery, 201.
Botryosphaeria sp., tung-oil tree
 see *Dothiorella* sp.
Botrytis spp., apple, 173.
 blackberry, 190.
 larkspur, 277.
 Lilium spp., 282.
 onion, 32, 196.
 pea, 33.
 pear, 33.
 pepper, 207.
 potato, 34.

Botrytis sp., rose, 285
 snapdragon, 273.
 tomato, 221
 tulip, 288.
allii, onion, 196.
cinerea, apple, 28.
 artichoke, 28
 asparagus, 201.
 cauliflower, 30.
 dewberry, 31.
 grape, 31.
 lettuce, 219.
 onion, 196.
 pear, 188.
 peony, 283.
 rose, 285.
 strawberry, 170.
convoluta, iris, 280.
elliptica, *Lilium candidum*, 282.
narcissicola, narcissus, 283.
paenoniae, peony, 283.
squamosa, onion, 196.
tulipae, tulip, 288.
Boydia insculpta, holly, 280.
 Breakdown, yellow waxy, garlic, 31.
 Break-over of stems, wheat, 74.
Bremia lactucae, *Centaurea cyanus*,
 275.
 lettuce, 32, 219.
 Brown blight, lettuce, 32, 220.
 blotch, pear, 189.
 center (non-par.), turnip, 207.
 discoloration, potato, 34.
 root rot (undet.), tobacco, 256.
 Bruising, watermelon, 35.
 Buckeye rot, tomato, 36.

C

Canker, hops, 252.
 Catface (non-par.), tomato, 227.
Cephaleuros mycoideus, guava, 188.
Cephalosporium sp., elm, 270.
 persimmon, 265.
 acremonium, field corn, 151.
Cephalothecium roseum, apple, 28.
Ceratostomella sp., *Platanus*
 acerifolia, 266.
 fimbriata, sweetpotato, 97, 217.

Ceratostomella ulmi, elm, 270.
Cercospora sp., avocado, 183.
 Betula spp., 263.
 cowpea, 157.
 Fraxinus texensis, 265.
 Ligustrum spp., 281.
 parsley, 227.
 peanut, 248.
 strawberry, 170.
 sugar cane, 258.
althaeina, hollyhock, 272.
apii, celery, 199
apii carotae, carrot, 216.
beticola, garden beet 202.
 mangel-wurzel, 202.
 sugar beet, 109, 257.
 swiss chard, 202.
capsici, pepper, 207.
columnaris, bean, 229.
diazu, soybean, 155.
fusca, pecan, 195.
ipomoeae, *Ipomoea quinquefolia*, 280.
kalmiae, *Kalmia latifolia*, 281.
 mountain laurel, 281.
medicaginis, alfalfa, 153.
meliae, China-berry, 266.
meliloti, sweet clover, 155.
nicotianae, tobacco, 253.
oryzae, rice, 140.
personata, peanut, 248.
variclor, peony, 283.
violae, violet, 288.
zebrina, *Trifolium hybridum*, 156.
 Trifolium pratense, 156.
Cercospora albomaculans, turnip, 206.
herpotrichoides, wheat, 144.
mori, mulberry, 182.
pastinacae, parsnip, 227.
Cercospora anethi, dill, 199.
Cerotelium fici, fig, 170.
 Cherry red, tobacco, 257.
 Chlorosis (non-par.), carnation, 278.
 celery, 201.
 cowpea, 157.
 eggplant, 236.
 Ligustrum sp., 282.
 rose, 286.
 Spiraea prunifolia, 287.
 Chlorotic streak, (undet.), sugar
 cane, 258.

- Chrysomyxa cassandrae*, *Chamaedaphne*
 calyculata, 260.
 Picea mariana, 260.
 Picea pungens, 260.
Cladosporium sp., holly, 265.
 lilac, 287.
 pear, 33, 188.
 pepper, 207.
 plum, 186.
 tomato, 37, 38, 221.
 carpopylum, cherry, 184.
 peach, 116, 164.
 carpopylum, plum, 186.
 cucumerinum, cantaloupe, 210.
 cucumber, 213.
 summer squash, 216.
 effusum, pecan, 195.
 fulvum, tomato, 221.
 herbarum, tomato, 36.
 myriosporum, pea, 232.
 paeoniae, peony, 283.
 pisicola, pea, 34, 233.
Claviceps purpurea, *Agropyron* spp.,
 158.
 barley, 137.
 Bromus spp., 159.
 Dactylis glomerata, 160
 Elymus spp., 161
 rye, 90, 142.
 wheat, 143
Clitocybe tabescens, tung-oil
 tree, 248.
 Cloudy spot (undet.), tomato, 37.
 Club root, tobacco, 257.
Coccomyces hiemalis, cherry, 113, 185.
 prunophorae, plum, 187.
 Cold injury, tobacco, 257.
Coleosporium spp., in southeastern
 U.S., 258.
 campanulae, *Campanula persicifolia*,
 275.
 ipomoeae, *Ipomoea hederacea*, 280.
 solidaginis, *Callistephus*
 chinensis, 274.
 Pinus resinosa, 260.
 vernoniae, *Pinus rigida*, 260.
 Collaborators and contributors list
 for 1938, 120-123.
- Colletotrichum* sp., asparagus, 201.
 avocado, 183.
 pepper, 207.
 antirrhini, snapdragon, 273.
 circinans, onion, 196.
 destructivum, clover, 156.
 falcatum, sugar cane, 258.
 gloeosporioides, avocado, 183.
 Lucuma nervosa, 173.
 mango, 182.
 papaya, 168.
 graminicola, *Dactylis glomerata*,
 160
 oats, 135.
 rye, 91, 142.
 Sorghum vulgare sudanense, 163.
 wheat, 143.
 higginsianum, turnip, 206.
 lagenarium, cantaloupe, 210.
 cucumber, 31, 213.
 gourd, 214.
 honey dew melon, 212.
 squash, 214.
 watermelon, 35, 209.
 lindemuthianum, bean, 229.
 cowpea, 157.
 lima bean, 228.
 nigrum, pepper, 208.
 phomoides, tomato, 221.
 spinaciae, spinach, 246.
Coniothyrium fuckelii, rose, 286.
 wernsdorffiae, rose, 286.
 Copper injury, apple, 181.
 Core rot (undet.), tomato, 227.
 Cork (non-par.), apple, 181.
 Cork formation, *Gardenia florida*, 278.
Corticium fuciforme, *Festuca* spp., 161
 stevensii, fig, 170.
 vagum, cabbage, 204.
 cotton, 249.
 eggplant, 235.
 escarole, 209.
 lettuce, 219.
 peanut, 248.
 potato, 98, 237.
 sweetpotato, 218.
Coryneum sp., *Thuja orientalis*, 262.

- Coryneum beijerinckii*, apricot, 183.
 cherry, 185.
 peach, 33, 164.
 Prunus sp., 267.
 Cracked stem (non-par.), celery, 201.
 rhubarb, 235.
 swiss chard, 202.
 Cracking, apple, 181.
 Crinkle (virus), *Pelargonium zonale*, 284.
 strawberry, 172.
 Crinkle mosaic (virus), cowpea, 157.
Cronartium sp., *Pinus sylvestris*, 260.
 coleosporioides, *Pinus* spp., 260.
 fusiforme, loblolly pine, 261.
 Pinus spp., 260.
 Pinus caribaea, 261.
 quercuum, *Pinus* spp., 261.
 Pinus banksiana, 261.
 Pinus caribaea, 261.
 Pinus echinata, 261.
 Pinus taeda, 261.
 Pinus virginiana, 261.
 ribicola, *Pinus albicaulis*, 261.
 Pinus lambertiana, 261.
 Pinus strobus, 261.
 Crown girdle (undet.), tung-oil tree, 248.
 Crown rot (non-par.), garden beet, 202.
Cryptosporella viticola, grape, 193.
 Cucumber mosaic (virus), celery, 200.
Cumminsella sanguinea, *Mahonia aquifolium*, 282.
 Curly top (virus), bean 105, 106, 232.
 cantaloupe, 211..
 dry beans, 106.
 garden beet, 202.
 green beans, 105..
 honey dew melon, 212.
 pepper, 208..
 pumpkin, 215..
 soybean, 156..
 spinach, 247..
 squash, 215..
 sugar beet, 109, 258..
 tomato, 103, 225..
 violet, 288..
 winter squash, 215..
Cuscuta sp., chrysanthemum, 276.
 Lagerstroemia indica, 281.
 petunia, 284.
 Cyanamid injury, apple, 181.
Cyanospora albicedrae, *Juniperus communis montana*, 259.
Cylindrosporium sp., *Celtis* spp., 264.
 Juglans nigra, 266.
 filipendulae, *Spiraea* sp., 287.
 microspilum, *Quercus palustris*, 267.
 negundinis, *Acer negundo*, 262.
Cytospora sp., elm, 270.
 Picea spp., 260.
 Populus nigra bolleana, 267.
 chrysosperma, *Betula* spp., 263.
 mountain ash, 270.
 poplar, 267.
 willow, 269.
 leucostoma, *Picea excelsa*, 260.
 Picea pungens, 260.
 nivea, *Populus tremuloides*, 267.
 sacchari, sugar cane, 258.
- D
- Damping-off, spinach, 247.
 sugar beet, 109.
 Deficiency diseases, cotton, 110, 251.
 tobacco, 111.
Dendrophoma obscurans, strawberry, 170.
Diaporthe arctii (Phomopsis stage),
 Delphinium ajacis, 277.
 phaseolorum, lima bean, 228.
 sojae, soybean, 155.
Didymella applanata, raspberry, 191.
 iridis, iris, 280.
 Iris germanica, 281.
 Die-back, *Catalpa* spp., 264.
 juniper, 260.
 rhododendron, 285.
Dilophospora alopecuri, *Sitanion jubatum*, 163.
Dimerosporium magnoliae, magnolia, 266.
Diplocarpon earliana, strawberry, 117, 170.
 rosae, rose, 286.
Diplodia, cotton, 249.

Diplodia, spp., field corn, 149.
 onion, 32.
 rose, 286.
 sweet corn, 96, 152.
 watermelon, 35.
gossypina, cotton, 249.
macrospora, field corn, 150.
zeae, field corn, 94, 149.
 Discoloration, tomato, 39.
Ditylenchus dipsaci, *Callistephus*
chinensis, 275.
 Dormant hills, hops, 252.
Dothichiza populea, poplar, 267.
Dothichloë nigricans, *Panicum scribner-*
ianum, 162.
Dothiorella sp., tung-oil tree, 248.
 Drought injury, peach, 168.
 strawberry, 173.
 wheat, 19, 149.
 Drought spot (non-par), apple, 181.
 Dry-rot fungus, *Libocedrus decurrens*,
 260.
 Dust storm injury, wheat, 19.
 Dwarfing (non-par.), celery, 201.
 Dying (undet.), *Arbutus menziesii*, 263.

E

Ear rots, field corn, 95.
 Edema. see oedema
Elsinoë ampelina, grape, 193.
veneta, blackberry, 190.
 boysenberry, 191.
 dewberry, 191.
 raspberry, 191.
Endophyllum sempervivi, *Sempervivum*
 sp., 286.
Endothia parasitica, *Castanea* spp.,
 264.
Castanea dentata, 264.
Entyloma oryzae, rice, 140.
Epichloe typhina, *Elymus canadensis*,
 161.
Erwinia, see also *Bacillus*.
 aroideae, calla lily, 289.
 phytophthora, *Delphinium* spp., 277.
Erysiphe sp., cowpea, 157.
 dahlia, 276.
cichoracearum, cantaloupe, 210.

Erysiphe cichoracearum, *chrysanthemum*,
 275.
 cucumber, 213.
Delphinium sp., 277.
Phlox paniculata, 284.
 pumpkin, 215.
 salsify, 247.
 squash, 214.
Zinnia elegans, 289.
graminis, *Agropyron* spp., 158.
 alfalfa, 153.
 barley, 89, 137.
Bromus spp., 159.
 oats, 135.
Phalaris arundinacea, 162.
Poa pratensis, 163.
 rye, 142.
 wheat, 49, 143.
 polygoni, bean, 229.
 clover, 156.
Gardenia florida, 278.
 green beans, 105.
 lima bean, 228.
 pea, 233.
Exobasidium burtii, *Azalea canescens*,
 274.
burtii, *Azalea japonica*, 274.
Azalea nudiflora, 274.
Azalea rosea, 274.
Azalea viscosa, 274.
vaccinii, azalea, 274.
 rhododendron, 285.
vaccinii-uliginosi, rhododendron,
 285.

F

Fabraea maculata, *Amelanchier*
canadensis, 263.
Crataegus oxyacantha, 264.
 English hawthorn, 264.
 pear, 112, 188.
 quince, 169.
 False blossom (virus) cranberry, 193.
 Fern leaf (virus), tomato, 225.
 Flood damage, onion, 198.
 tobacco, 257.
 losses, wheat, 53.
Fomes sp., *Betula* spp., 263.

- Fomes annosus*, *Abies balsamea*, 259.
Pinus banksiana, 261.
Pinus densiflora, 261.
Pinus palustris, 261.
Pinus strobus, 261.
Pinus sylvestris, 261.
fraxinophilus, *Fraxinus lanceolata*, 265.
 mountain ash, 270.
 Foot rot, barley, 88.
 field corn, 94.
 rye, 91.
 wheat, 53, 86.
 Freezing injury, apple, 182.
Ligustrum sp., 282.
 Frenching (non-par.), tobacco, 256.
 Frost injury, apple, 182.
 cherry, 186.
 grape, 194.
 mulberry, 183.
 peach, 168.
 pear, 189.
 prune, 184.
 quince, 169.
 strawberry, 173.
Vitis labrusca, 194.
 wheat, 15, 19, 149.
 woody plants, 258, 272.
 Fruit drop, filbert, 195.
 Fruit mottle (virus), tomato, 225.
 Fruit rots, strawberry, 117.
Fumago sp., holly, 265.
 hops, 252.
Ligustrum spp., 281.
vagans, *Gardenia florida*, 278.
 rhododendron, 285.
Fusaria, peanut, 248.
 strawberry, 172.
Fusarium spp., asparagus, 28.
 bean, 230.
Callistephus chinensis, 274.
 cantaloup, 29, 210.
 carnation, 277.
 celery, 199.
 cotton, 249.
Digitaria horizontalis, 161.
 dry beans, 106.
 field corn, 150, 151.
Fusarium spp., garlic, 198.
 gladiolus, 279.
 green beans, 105.
 green peas, 107, 108.
 Iris, 281.
 lima bean, 228.
 oats, 93, 135.
 onion, 196.
 papaya, 169.
 pea, 233.
 pepper, 207.
 popcorn, 152.
 potato, 100, 237, 238.
 rye, 142.
 spinach, 246.
 squash, 214.
 summer squash, 216.
 sweet clover, 155.
 sweet corn, 96, 152.
 tobacco, 253.
 tomato, 222.
 wheat, 144.
 winter squash, 215.
apii, celery, 199.
pallidum, celery, 199.
avenaceum, potato, 237.
batatatis, sweetpotato, 218.
bulbigenum batatas, sweetpotato, 97, 218.
lycopersici, tomato, 102, 104, 221.
niveum, cantaloupe, 211.
 watermelon, 209.
niveum f.2, cantaloupe, 211.
cepa, onion, 197.
conglutinans, cabbage, 204.
 cauliflower, 203.
callistephi, *Callistephus chinensis*, 274.
culmorum, asparagus, 201.
lini, flax, 140.
martii phaseoli, bean, 230.
moniliforme, cotton, 249.
 field corn, 150, 151.
 sugar cane, 258.
orthoceras longius, strawberry, 170.
pisi, pea, 233.
oxysporum, sweetpotato, 97, 218.
 f.1, potato, 238.

- Fusarium exysporum* f. 2, sweetpotato, 97.
gladioli, gladiolus, 279.
medicaginis, alfalfa, 153.
nicotianae, tobacco, 253.
solani eumartii, potato, 238.
martii f. 2., pea, 233.
spinaciae, spinach, 246.
vasinfectum, cotton, 110, 249, 250.
pisi, pea, 233.
zonatum f.l. onion, 197.
Fusicladium pyracanthae, firethorn, 285.
robiniae, locust, 269.
saliciperdum, willow, 269.
Fusisporium rubi, raspberry, 191.
 Ghost spot, tomato, 37.
 Giant hill (virus), potato, 243.
Gibberella saubinetii, wheat, 10, 49.
 see also *Gibberella zeae*.
zeae, barley, 89, 137
 field corn, 150, 151.
 oats, 135.
 rye, 142.
 wheat, 86, 144.
 Girdle, carrot, 217.
 garden beet, 202.
Gloeodes pomigena, apple, 174.
 blackberry, 190.
 pear, 188.
Gloeosporium sp., *Acer* spp., 262.
 dogwood, 264.
 Fraxinus pennsylvanica, 265.
 lilac, 287.
 apocryptum, *Acer platanoides*, 262.
 canadense, oak, 267.
 caulivorum, clover, 156.
 Trifolium pratense, 156.
convallariae, *Convallaria majalis*, 276.
 inconspicuum, elm, 270.
 medicaginis, alfalfa, 153.
 perennans, apple, 28, 174.
 pear, 188.
 ulmi, *Ulmus americana*, 270.
 Ulmus pumila, 270.
Glomerella cingulata, apple, 27, 114, 174.
 Ligustrum spp., 281.
 pepper, 208.
Glomerella cingulata, snowberry, 287.
 glycines, soybean, 155.
 gossypii, cotton, 110, 249, 250.
Gnomonia leptostyla, Persian walnut, 195.
 ulmea, elm, 271.
 Ulmus americana, 271.
 Ulmus parvifolia, 271.
 Ulmus pumila, 271.
 veneta, oak, 267.
 ornamental sycamore, 266.
 Platanus spp., 266.
 Platanus occidentalis, 266.
 Platanus orientalis, 266.
 Platanus racemosa, 266.
Gnomoniella coryli, filbert, 195.
 Graft blight, *Gypsophila*, 280.
 Gray wall, tomato, 37.
 Green mottle (virus), apple, 180.
 stripe, tomato, 37.
 Growth cracks, tomato, 35.
 aesculi, *Aesculus georgiana*, 263.
 Aesculus hippocastanum, 263.
 bidwellii, grape, 118, 193.
Gymnoconia peckiana, blackberry, 190.
 raspberry, 191.
Gymnosporangium spp., apple, 114.
 flowering crab, 266.
 hawthorn, 265.
 ornamental apples, 266.
 betheli, hawthorn, 265.
 clavipes, apple, 174.
 hawthorn, 265.
 juniper, 259.
 exiguum, juniper, 259.
 globosum, apple, 175.
 hawthorn, 265.
 juniper, 259.
 juniperi-virginianae, apple, 175.
 Juniper, 259.
 H
 Hail injury, wheat, 19.
 losses, wheat, 53.
 Hair-pin (undet.), *Agropyron* spp., 158.
 Bromus spp., 160.
 Elymus condensatus, 161.
 sprout (undet.), potato, 244.

- Heart rot (undet.), sugar beet, 258.
 Heat injury, strawberry, 173.
 wheat, 149.
Helminthosporium sp. barley, 137.
 Cynodon dactylon, 160.
 field corn, 151.
 garlic, 198.
 Poa pratensis, 163.
 rye, 142.
 Sorghum vulgare sudanense, 163.
 wheat, 10, 144.
 avenae, oats, 135.
 gramineum, barley, 49, 88, 137.
 ocellum, sugar cane, 258.
 oryzae, rice, 140.
 papulosum, apple, 175.
 sativum, barley, 137.
 wheat, 144.
 stenospilum, sugar cane, 258.
 turcicum, field corn, 151.
 Sorghum vulgare sudanense, 163.
 sweet corn, 152.
Hendersonia opuntiae, *Opuntia* sp., 283.
Heterodera marioni, bean, 232.
 cabbage, 206.
 cantaloupe, 211.
 carrot, 217. *Catalpa speciosa*, 264.
 celery, 200.
 Chenopodium album, 275.
 cotton, 110, 251.
 cowpea, 157.
 dahlia, 276.
 eggplant, 236.
 Fraxinus lanceolata, 265.
 Gardenia florida, 278.
 Ligustrum amurense, 282.
 lima bean, 229.
 locust, 269.
 magnolia, 266.
 mulberry, 183.
 onion, 198.
 peach, 167.
 peony, 283.
 pepper, 208.
 Plumbago sp., 285.
 potato, 243.
 rose, 286.
Heterodera marioni, snapdragon, 273.
 strawberry, 172.
 sugar beet, 258.
 sweetpotato, 218.
 tobacco, 256.
 tomato, 102, 224.
 Ulmus americana, 271.
 Ulmus parvifolia, 271.
 zinnia elegans, 289.
 schachtii, sugar beet, 258.
Heterosporium echinulatum, carnation, 277.
 gracile, iris, see *Didymellina*
 iridis.
 variable, spinach, 246.
 Hopperburn (leafhoppers), potato, 100, 244.
 Hurricane damage, onion, 198.
 tobacco, 257.
Hypoxylon spp., apple, 176.
- I
- Internal breakdown (non-par.), apple, 181.
 Interveinal browning (undet.), tung-oil tree, 248.
- J
- Jonathan spot (undet.), apple, 28.
 June yellows, strawberry, see variegation.
- K
- Keeping quality, cranberry, 193.
Kuehneola uredinis, blackberry, 190.
- L
- Leaf blight (non-par.); *Acer* spp., 263.
 (non-par.) holly, 265.
 Kalmia sp., 281.
 rhododendron, 285.
 burn (non-par.), *Sambucus* sp., 270.
 burning (non-par.), *Aesculus hippocastanum*, 263.

Leaf burning (non-par.), dogwood, 264.
 curl (virus), raspberry, 192.
 drop (non-par.), cherry, 186.
 necrosis, filbert, 195.
 roll (virus), potato, 98, 243.
 scorch (non-par.), *Acer* spp., 263.
 apple, 181.
 Betula spp., 263.
 Catalpa spp., 264.
 spot (non-par.), apricot, 184.
 spotting, marigold, 288.
Lecanosticta acicola, *Pinus taeda*, 260.
Leptosphaeria coniothyrium, raspberry, 191.
 coniothyrium, rose, 286.
 salvinii, see *Sclerotium oryzae*.
Leptothyrium pomi, apple, 176.
 pear, 188.
 Light injury, celery, 201.
 Lightning injury, cotton, 249.
 Lime-sulfur plus lead arsenate injury,
 apple, 181.
 Little peach (virus), peach, 167.
 Lodging, wheat, 10, 15.
Lophodermium sp., fir, 259.
 Pinus spp., 261.

M

Macrophoma candollei, *Buxus* sp., 274.
Macrophomina phaseoli, lima bean, 228.
Macrosporium sp., locust, 269.
 tomato, 35, 36, 37, 38, 39.
 carotae, carrot, 216.
 porri, onion, 197.
 sarcinaeforme, clover, 156.
 tomato, 38.
 sarcinula parasiticum, onion, 197..
 Magnesium deficiency, cauliflower, 204.
 cotton, 251..
Marasmius tritici, wheat, 144.
Marssonina juglandis, *Juglans* spp., 266.
 Persian walnut, 195.
Marssonina sp., willow, 270.
 panattoniana, lettuce, 219.
 populi, willow, 270.
 Measles, apple, 181.
Melampsora sp., poplar, 267.
 abieti-capraearum, *Abies grandis*,
 259.

Melampsora bigelowii, willow, 270.
 lini, flax, 140.
 medusae, *Populus deltoides*, 267.
Melampsorella cerastii, *Picea pungens*,
 260..
Melanconium fuliginum, grape, 194.
Melanospora spp., garlic, 198.
 Meteorological factors influencing
 the 1938 wheat crop, 8.
Microsphaera alni, lilac, 287.
 pecan, 195.
 sycamore, 267.
 diffusa, *Symphoricarpos vulgaris*,
 287.
 extensa, oak, 268.
 Mild mosaic (virus), potato, 243.
 Missing hills, hops, 252.
Monilochaetes infuscans, sweetpotato,
 97, 218.
Monochaetia, *Quercus borealis*, 268.
 Mosaic (cucumber virus), petunia, 284.
 spinach, 247.
 Mosaic (cucumber virus 1), snapdragon,
 273.
 Mosaic (virus), alfalfa, 154.
 apple, 180.
 bean, 232.
 cabbage, 206.
 cantaloupe, 211.
 cowpea, 157.
 cucumber, 214.
 dahlia, 276.
 dry beans, 106.
 eggplant, 236.
 field corn, 152..
 gladiolus, 279.
 gooseberry, 190.
 green beans, 105.
 iris, 281.
 lettuce, 220.
 Lilium longiflorum, 282.
 Lilium speciosum rubrum, 282.
 narcissus, 283.
 onion, see yellow dwarf.
 pea, 33, 234.
 peach, 167.
 pepper, 208.
 petunia, 284.
 potato, 98.

Mosaic (virus), prune, 184.
 raspberry, 192.
 rose, 286.
 soybean, 156.
 squash, 215.
 strawberry, 172.
 sugar cane, 258.
 sweetpotato, 218.
 tobacco, 111, 256.
 tomato, 38, 40, 103, 225.
 Trifolium sp., 157.
 Trifolium pratense, 157.
 wheat, 10, 149.
 Zinnia elegans, 289.

Mosaic, shoestring (cucurbit virus),
 tomato, 226.
 yellow, (virus), lima bean, 229.

Mottle leaf (virus), cherry, 186.

Mottled ripening, tomato, 38.

Multiple bud (undet.), sugar cane,
 258.

Mycosphaerella brassicicola, cabbage,
 205.
 citrullina, cantaloupe, 211.
 cucumber, 213.
 pumpkin, 215.
 winter squash, 215.
 fragariae, strawberry, 117, 171.
 grossulariae, gooseberry, 189.
 lythracearum, pomegranate, 188.
 pinodes, green peas, 107, 108.
 pea, 233.
 pomi, apple, 176.
 quince, 169.
 rubi, raspberry, 192.
 rubina, raspberry, 192.
 sentina, pear, 188.

Myxosporium corticolum, apple, 176.

N

Naucoria cerealis, barley, 137.
 rye, 142.
 wheat, 144.

Necrosis (non-par.), apricot, 184.
 mulberry, 183.

Nectria cinnabarina, beech, 265.
 ditissima, Acer spp., 262.
 rousselliana, Buxus sp., 274.

Nematodes, Begonia melior, 274.

Nematospora coryli, tomato, 222.

Neofabraea malicorticis, apple, 176.
 pear, 188.
 quince, 169.

Nigrospora sphaerica, field corn, 150.

Nummularia discreta, apple, 176.

O

Oedema (non-par.), cabbage, 206.
 celery, 201.
 geranium, 284.
 tomato, 227.

Oidium sp., avocado, 183.
 petunia, 284.
 snapdragon, 273.
 leucoconium, Photinia serrulata,
 284.
 obductum, sycamore, 267.

Oil injury, apple, 181.

Ophiobolus graminis, rye, 142.
 wheat, 144.
 miyabeanus, see Helminthosporium
 oryzae.

Ophiodothella vaccinii, Vaccinium
 arboreum, 288.

P

Penicillium spp., apple, 176.
 cranberry, 193.
 field corn, 150, 151.
 garlic, 31.
 gladiolus, 279.
 grape, 31.
 Lilium sp., 282.
 plum, 187.
 pomegranate, 188.
 digitatum, lemon, 32.
 expansum, apple, 27, 176.
 italicum, grapefruit, 32.
 orange, 33.

Peronospora antirrhini, snapdragon,
 273.
 arthuri, Godetia amoena, 279.
 corydalis, Corydalis sp., 276.
 destructor, onion, 197.
 effusa, spinach, 246.

- Peronospora manshurica*, soybean, 155.
parasitica, *Alyssum maritimum*, 272.
 cabbage, 205.
 cauliflower, 203.
 Iberis amara, 280.
 radish, 234.
 turnip, 207.
pisi, pea, 233.
potentillae, *Geum chiloense*, 279.
schachtii, garden beet, 202.
tabacina, tobacco, 111, 253.
trifoliorum, alfalfa, 153.
viciae, pea, 233.
Pestalotia sp., *rhododendron*, 285.
Pestalozzia sp., *arborvitae*, 262.
 juniper, 260.
 funerea, *arborvitae*, 262.
 uvicola, pecan, 195.
Pezizella lythri, strawberry, 171.
Phaeocryptopus sp., Douglas fir, 262.
 gäumanni, 262.
Phakopsora zizyphi-vulgaris, Chinese jujube, 194.
Phloem necrosis (virus), elm, 271.
Phoma sp., *Opuntia* sp., 283.
 peanut, 249.
 apiicola, celery, 199.
 beta, mangel-wurzel, 202.
 betae, sugar beet, 257.
 destructiva, tomato, 222.
 lingam, broccoli, 203.
 cabbage, 205.
 cauliflower, 203.
 turnip, 207.
 mali, apple, 176.
 media, asparagus, 201.
 medicaginis, see *Ascochyta imperfecta*.
 nebulosa, parsnip, 227.
 terrestris, onion, 197.
Phomopsis sp., *Forsythia suspensa*, 278.
 grapefruit, 32.
 holly, 265.
 oak, 268.
 orange, 33.
 Symphoricarpos vulgaris, 287.
 callistephi, *Callistephus chinensis*, 275.
 gardeniae, *Gardenia florida*, 278.
 juniperovora, *Juniperus* spp., 260.
 Juniperus sabina tamarascifolia, 260.
 vexans, eggplant, 236.
Phony peach (virus), peach, 167.
Phragmidium sp., rose, 286.
 americanum, rose, 286.
 disciflorum, rose, 286.
 rubi-idaei, raspberry, 192.
Phyllachora trifolii, clover, 156.
Phyllophaga lanceolata (white grub), wheat, 9.
Phyllosticta sp., holly, 265.
 Malus ioensis, 266.
 antirrhini, snapdragon, 273.
 kalmicola, mountain laurel, 281.
 liriodendrica, tuliptree, 266.
 medicaginis, alfalfa, 153.
 melaleuca, *Ulmus americana*, 271.
 minima, *Acer* spp., 262.
 minima, *Acer dasycarpum*, 262.
 Acer rubrum, 262.
 opaca, holly, 265.
 phaseolina, cowpea, 157.
 phlei, *Phleum pratense*, 162.
 solitaria, apple, 114, 176.
 straminella, rhubarb, 235.
Phymatotrichum omnivorum, *Acer* spp., 262.
 bean, 230.
 Celtis spp., 264.
 China-berry, 266.
 cotton, 110, 250.
 cowpea, 157.
 cucumber, 213.
 eggplant, 236.
 firethorn, 235.
 garden beet, 202.
 Ligustrum sp., 281.
 Ligustrum amurense, 281.
 Ligustrum japonicum, 282.
 Ligustrum ovalifolium, 282.
 lilac, 287.
 okra, 217.
 pepper, 208.
 rose, 286.
 Spiraea prunifolia, 287.

- Phymatotrichum omnivorum*, squash, 214.
 tomato, 222.
Ulmus spp., 271.
Ulmus parvifolia, 271.
Physalospora cydoniae, apple, 114.
 obtusa, apple, 177.
 quince, 169.
Physarum sp., alfalfa, 153
 clover, 156.
Physoderma zeae-maydis, field corn,
 151.
Physopella fici, fig., 170.
Phytomonas, see also *Aplanobacter*,
 Bacterium.
 campestre, cauliflower, 204.
 geranii, *Geranium sanguineum*, 278.
 viburni, *Viburnum opulus*, 288.
Phytophthora sp., asparagus, 28.
 cantaloupe, 211.
Chamaecyparis lawsoniana, 259.
Chamaecyparis obtusa gracilis,
 259.
 columbine, 273.
Daphne sp., 277.
 honey dew melon, 212.
Lilium candidum, 282.
Lilium regale, 282.
Lilium tenuifolium, 282.
 potato, 238.
 rhubarb, 235.
 strawberry, 117, 171.
 tomato, 223.
 cactorum, apple, 177.
Cornus florida, 264, 276.
Kalanchoë sp., 281.
 lilac, 287.
Lilium spp., 282.
 peony, 283.
 rhododendron, 285.
 snapdragon, 273.
 strawberry, 171.
 cinnamomi, rhododendron, 285.
 citrophthora, lemon, 32.
cryptogea richardiae, calla lily,
 289.
cryptogea, *Tagetes erecta*, 288.
 erythroseptica, potato, 238.
 infestans, potato, 34, 98, 238.
 tomato, 37, 222.
Phytophthora megasperma, sweet clover,
 155.
 parasitica, tomato, 222.
 nicotianae, tobacco, 254.
 phaseoli, lima bean, 228.
 Pink cherry (virus). cherry, 186.
Piricularia leaf spot, *Digitaria*
sanguinalis, 161.
 oryzae, rice, 141.
Placosphaeria medicaginis, alfalfa,
 153.
Plasmodiophora brassicae, broccoli,
 203.
 cabbage, 205.
 cauliflower, 204.
 kale, 203.
Lunaria sp., 282.
 radish, 235.
 rutabaga, 203.
 turnip, 207.
Plasmopara viticola, grape, 118, 194.
Plenodomus destruens, sweetpotato,
 218.
Pleospora lycopersici, tomato, 39, 223.
 rehmanniana, see *Ascochyta imperfecta*.
Plowrightia morbosus, cherry, 185.
 plum, 187.
 prune, 184.
Podosphaera leucotricha, apple, 178.
 plum, 187.
 oxyacanthae, cherry, 185.
 nectarine, 168.
 peach, 164.
 persimmon, 265.
Polyporus curtisii, peach, 164.
 pargamensis, oak, 268.
 versicolor, oak, 268.
 Pop, peanut, 249.
 Popped kernels (non-par.), popcorn,
 152.
Poria sp., *Betula* spp., 263.
 obliqua, *Betula lenta*, 263.
 Potash deficiency, cotton, 251.
 tobacco, 256.
Pratylenchus pratensis, bean, 232.
 Premature ripening, wheat, 75.
Pseudodiscosia avenae, oats, 136.
Pseudomonas papulans, apple, 180.
Pseudoperonospora cubensis, cantaloupe, 211.

Pseudoperonospora cubensis, cucumber, 213.

Pseudoperonospora cubensis, honey dew melon, 212.

squash, 214.

watermelon, 209.

humuli, hops, 252.

medicaginis, alfalfa, 153.

ribis, gooseberry, 190.

trifolii, ladino clover, 156.

Trifolium sp., 156.

Trifolium pratense, 156.

white clover, 156.

Pseudoplea briosiana, alfalfa, 154.

Psyllid yellows, (psyllids), potato, 100, 245.

Psyllid yellows, tomato, 227.

Puccinia agropyri, bluegrass, 48.

amphigena, *Calamovilfa longifolia*, 160.

anomala, barley, 41, 45, 47, 48, 89, 137.

antirrhini, snapdragon, 273.

aristidae, spinach, 246.

asparagi, asparagus, 201.

boutelouae, *Bouteloua curtipendula*, 159.

caricis-shepherdiae, *Shepherdia canadensis*, 287.

chrysanthemi, chrysanthemum, 275.

coronata, buckthorn, 269.

Festuca spp., 162.

Lolium multiflorum, 162.

oats, 3, 93.

coronata avenae, oats, 41, 48, 135.

dispersa, rye, 41, 45, 48,

fraxinata, *Fraxinus pennsylvanica*, 265.

glumarum, *Agropyron* spp., 158.

Elymus canadensis, 161.

Hordeum nodosum, 162.

Sitanion hystrix, 163.

wheat, 144.

graminis, *Agropyron* spp., 158.

Avena fatua, 159.

barley, 41, 44, 45, 46, 47, 80, 89.

barberry, 44, 45, 75, 76, 77.

Puccinia graminis, *Berberis canadensis*, 41.

blue grass, 44, 46.

Elymus canadensis, 161.

grasses, 44, 76.

Hordeum spp., 162.

Hordeum jubatum, 70.

oats, 92.

orchard grass, 46.

Phleum pratense, 162.

Poa pratensis, 163.

quack grass, 76.

rye, 41, 44, 45, 46, 47, 76, 91.

Puccinia graminis, wheat, 3, 10, 15,

41, 44, 45, 46, 47, 48, 49, 86.

wheat, epidemic of 1938 in

Kansas, 51-68.

wheat, in 1938, 69-83.

graminis avenae, barberry, 82.

graminis avenae, oats, 41, 45, 46, 47, 69, 70, 136.

graminis secalis, barberry, 82.

graminis secalis, rye, 142.

graminis tritici, barberry, 82, 83.

barley, 138.

wheat, 144.

grossulariae, gooseberry, 190.

heterospora, hollyhock, 272.

imposita, *Leptoloma cognatum*, 162.

malvacearum, hollyhock, 272.

Malva rotundifolia, 272.

menthae, mint, 252.

monoica, *Trisetum spicatum*, 163.

pattersoniana, *Agropyron spicatum*, 158.

poa-sudeticae, *Poa* spp., 163.

purpurea, sorghum, 142.

Puccinia rubigo-vera, *Agropyron elmeri*, 158.

Hordeum nodosum, 162.

rubigo-vera agropyri, *Elymus* spp., 161.

rubigo-vera secalis, rye, 90, 142.

rubigo-vera similis, *Hordeum pusillum*, 162.

rubigo-vera tritici, barley, 89, 138.

wheat, 41, 47, 48, 49, 69, 73, 74,

75, 81, 86, 146.

- Puccinia rubigo-vera tritici*, wheat,
 epidemic of 1938 in Kansas,
 51-68.
 wheat, epiphytotic in Oklahoma,
 1938, 1-19.
schedonnardi, cotton, 250.
sorghii, field corn, 151.
 sweet corn, 152.
stipae, *Stipa comata*, 163.
tritici, see *P. rubigo-vera*
tritici.
tumidipes, *Lycium halimifolium*, 282.
violae, violet, 288.
Pucciniastrum americanum, raspberry,
 192.
Pucciniopsis caricae, papaya, 169.
 Puffs, tomato, 40.
 Purple top wilt (undet.), potato, 98,
 244.
Pyrenopeziza medicaginis, alfalfa, 154.
Pyrenophora teres, barley, 138.
Pythium spp., *Begonia tuberhybrida*,
 274.
 cotton, 249.
Cynodon dactylon, 160.
 field corn, 151.
 flax, 140.
 garden beet, 202.
 honey dew melon, 212.
 oats, 93.
 pepper, 208.
Pinus spp., 261.
 sorghum, 142.
 strawberry, 172.
 sugar beet, 257.
 sugar cane, 258.
 tobacco, 254.
 tomato, 223.
 watermelon, 209.
aphanidermatum, cucumber, 30.
 radish, 235.
 sugar beet, 257.
arrhenomanes, sorghum, 142.
butleri, field corn, 151.
complectens, *Delphinium ajacis*, 277.
Matthiola incana, 283.
debaryanum, alfalfa, 154.
Berberis gracilis, 274.
Pythium debaryanum, *Lupinus* sp., 282.
 tomato, 223.
 intermedium, *Begonia tuberhybrida*,
 274.
 irregulare, *Primula obconica*, 285.
 snapdragon, 273.
 ultimum, alfalfa, 154.
 bean, 230.
Begonia lloydii, 274.
Begonia semperflorens, 274.
Callistophus chinensis, 275.
 cowpea, 157.
 lettuce, 219.
Poinsettia pulcherrima, 285.
 snapdragon, 273.
 summer squash, 216.
 sweetpotato, 97, 218.
Tagetes patula, 288.
- R
- Ramularia areola*, cotton, 250.
 armoraciae, horseradish, 234.
 pastinacae, parsnip, 227.
Rhabdocline pseudotsugae, Douglas
 fir, 262.
Rhizoctonia spp., arborvitae, 262.
 bean, 29.
 carnation, 278.
 celery, 199.
Cynodon dactylon, 160.
 dahlia, 276.
Delphinium spp., 277.
 dry beans, 106.
 green beans, 105.
 lima bean, 228.
Matthiola incana, 283.
 papaya, 169.
 pepper, 208.
 petunia, 284.
Pinus spp., 261.
 spinach, 246.
 strawberry, 172.
 sugar beet, 257.
 tobacco, 254.
 wheat, 147.
 bataticola, see *Sclerotium*
 bataticola.

- Rhizoctonia crocorum*, alfalfa, 154.
oryzae, rice, 141.
solani, bean, 230.
 carnation, 278.
 cotton, 249.
Cynodon dactylon, 160.
 pea, 233.
 rice, 141.
Stenotaphrum secundatum, 163.
 sugar beet, 257.
 sugar cane, 258.
 tomato, 223.
- Rhizopus* sp., field corn, 151.
 summer squash, 216.
 sweetpotato, 35, 97, 218.
 tomato, 223.
nigricans, peach, 33.
 pepper, 34.
 strawberry, 171.
 sweetpotato, 218.
 tomato, 223.
- Rhynchosporium secalis*, barley, 138.
 rye, 142.
- Rhytisma acerinum*, *Acer* spp., 262.
erythrosporun, *Quercus virginiana*, 268.
 punctatum, *Acer spicatum*, 262.
- Ring spot (virus), dahlia, 276.
 geranium, 284.
 tobacco, 256.
 tomato, 226.
- Root diseases, strawberry, 117.
 rot, sugar beet, 109.
 wheat, 74.
 trouble (undet.), *Primula* sp., 235.
- Rosette (non-par.), apple, 181.
 Rosette (virus), peach, 167.
 Rugose mosaic, (virus) potato, 243.
- Russetting, apple, 181.
 prune, 184.
- Rust survey of cereals in Virginia, 1938, 43.
- Rusts, cereals, 135.
- S
- Salt injury, radish, 235.
 Savoy disease (virus), sugar beet, 258.
- Scald, apple, 28, 181.
 potato, 34.
 tobacco, 257.
- Scarring (mechanical injuries),
 tomato, 39.
- Sclerospora graminicola*, *Cynodon Dactylon*, 160.
- Sclerotinia* spp., celery, 199.
 nectarine, 168.
 prune, 184.
 rutabaga, 203.
- Sclerotinia carunculoides*, *Morus alba*, 182.
 cinerea (=fructicola), pear, 33.
 fructicola, apple, 27, 178.
 apricot, 184.
 cherry, 113, 185.
 peach, 33, 116, 164.
 plum, 187.
 prune, 184.
 gladioli, *gladiolus*, 279.
 laxa, apricot, 184.
 peach, 165.
 minor, sweet clover, 155.
 sclerotiorum, bean, 29, 230.
 cabbage, 205.
 Calendula officinalis, 274.
 carrot, 29, 216.
 cauliflower, 204.
 celery, 30, 199.
 Centaurea sp., 275.
 chrysanthemum, 275.
 cucumber, 213.
 Delphinium ajacis, 277.
 gloxinia, 287.
 lettuce, 219.
 Matthiola incana, 283.
 ornamentals, 272.
 pea, 33.
 peony, 283.
 pepper, 208.
 potato, 241.
 snapdragon, 273.
 spinach, 246.
 strawberry, 171.
 summer squash, 216.
 tomato, 223.
 winter squash, 215.
 Zinnia elegans, 289.
- trifoliorum*, alfalfa, 154.

Sclerotinia trifoliorum, crimson
 clover, 156.
 red clover, 156.
Sclerotium bataticola, cotton, 249.
 garlic, 198.
 peanut, 248.
 sorghum, 143.
 soybean, 155.
cepivorum, garlic, 198.
delphinii, *Centaurea* sp., 275.
 columbine, 273.
 Daphne odora, 277.
 Delphinium spp., 277.
 iris, 281.
 phlox, 284.
oryzae, rice, 141.
rolfsii, bean, 230.
 cantaloupe, 211.
 carrot, 217.
 columbine, 274.
 cotton, 249.
 larkspur, 257.
 papaya, 169.
 peanut, 249.
 pepper, 208.
 Physostegia sp., 284.
 potato, 34, 241.
 soybean, 155.
 sugar beet, 257.
 sugar cane, 258.
 tomato, 223.
 watermelon, 209.
Scolecotrichum graminis, *Agrostis*
 alba, 159.
 Beckmannia syzigachne, 159.
 Dactylis glomerata, 161.
 Phleum pratense, 162.
 rye, 142.
 Seed piece decay, potato, 242.
 Seedling blights, barley, 88.
 cotton, 110, 251.
 rye, 91.
Septogloeum sp., mountain ash, 270.
Septoria sp., *chrysanthemum*, 276.
 Chrysanthemum hortorum, 276.
 wheat, 147.
 acicola, pine, see *Lecanosticta*
 acicola.
 apii, celery, 200

Septoria apii-graveolentis, celery,
 200.
 azaleae, azalea, 274.
 bromigena, *Bromus inermis*, 159.
 chrysanthemella, *chrysanthemum*,
 276.
 chrysanthemi, see *S. chrysanthemella*.
 cornicola, dogwood, 264.
 cucurbitacearum, cantaloupe, 211.
 squash, 214.
 delphinella, *Delphinium* sp. 277.
 divaricata, phlox, 284.
 elymi, *Elymus glaucus*, 161.
 fairmani, hollyhock, 272.
 gigaspora; *Celtis pumila georgiana*,
 264.
 gladioli, *gladiolus*, 279.
 lactucae, lettuce, 220.
 lycopersici, tomato, 102, 104, 223.
 nodorum, wheat, 49, 53, 55, 147.
 obesa, *chrysanthemum*, 276.
 paeoniae, peony, 283.
 petroselini, parsley, 228.
 philadelphia, *Philadelphus* sp.,
 284.
 pisi, pea, 233.
 populicola, poplar, 267.
 ribis, gooseberry, 190.
 trifolii, clover, 156.
 tritici, wheat, 10, 147.
 Shoe string, (virus) tomato, 38.
 Shoulder bruises, tomato, 39.
 checks, tomato, 39.
 Shriveling, wheat, 75.
 Skin breakdown, honey dew melon, 212.
 orange, 33.
 Smelter injury (sulphur dioxide),
 bean, 232.
 potato, 245.
 Smudge, onion, 32.
 Snowbreak, conifers, 259.
 Sodium bisulphite injury, grape, 31.
Sorosporium ellisii, *Andropogon fur-*
 catus, 159.
 reilianum, field corn, 151.
 syntherismae, *Cenchrus pauciflorus*,
 160.
 Southern celery mosaic (virus), celery,
 201.

Sphaceloma menthae, mint, 252.
 perseae, avocado, 183.
 rosarum, rose, 286.
 violae, violet, 238.
Sphacelotheca cruenta, *Sorghum hale-*
 pense, 163.
 sorghii, sorghum, 143.
 Sorghum vulgare sudanense, 163.
Sphaerella linorum, flax, 140.
Sphaeropsis sp., elm, 271.
 ellisi, *Pinus nigra*, 261.
 Pinus nigra austriaca, 261.
 Pinus sylvestris, 261.
Sphaerötheca sp., rose, 286.
 humuli, boysenberry, 191.
 raspberry, 192.
 rose, 286.
 Spiraea sp., 287.
 strawberry, 172.
 mors-uvae, gooseberry, 190
 pannosa, apricot, 184.
 peach, 165.
 rose, 286.
 Spindle tuber (virus), potato, 244.
 Spindling sprout, potato, 244.
Spondylocidium atrovirens, potato,
 241.
Spongospora subterranea, potato, 241.
Sporidesmium scorzonerae, salsify, 247.
Sporocybe azaleae, azalea, 274.
Sporotrichum sp., apple, 178.
 Spotted wilt (virus), calla lily, 289.
 lettuce, 32.
 pepper, 208.
 tomato, 40, 226
 Spray injury, apple, 181.
 peach, 167.
 pear, 189.
 prune, 184.
Spumaria (myxomycete), holly, 265.
Stagonospora curtisii, narcissus, 283.
 Stalk rots, field corn, 95.
 Stem-end rot, tomato, 35.
Stereum frustulosum, oak, 268.
 purpureum, apple, 178.
 cherry, 185.
 Stippen, apple, see bitter
 pit.

Stoniness (virus), pear, 189.
 Storage rots, sweetpotato, 97.
 Storm injury, apple, 182.
 grape, 194.
 Straighthead (non-par.), rice, 141.
 Straw breaking, wheat, 66.
 Streak (virus), carnation, 278.
 pea, 234.
 raspberry, 193.
 rose, 286.
 Senecio cineraria, 287.
 tobacco, 256.
 tomato, 40, 226.
 Streak (undet.), garlic, 198.
Strumella coryneoidea, oak, 268.
 Stunt (virus), dahlia, 276.
 Sulfur dioxide injury, apple, 181.
 pomegranate, 188.
 Sunscald, *Acer* spp., 263.
 apple, 182.
 garlic, 31.
 tomato, 227.
 Surface breakdown, gladiolus, 279.
 Suspected mosaic, strawberry, see
 variegation.

T

Taphrina aurea, poplar, 267.
 cerasi, cherry, 186.
 coerulescens, *Quercus* sp., 268.
 Quercus borealis, 268.
 water oak, 268.
Taphrina deformans, peach, 116. 165.
 pruni, plum, 187.
Thielaviopsis basicola, geranium, 284.
 tobacco, 111, 254.
 paradoxa, pineapple, 168.
Tilletia spp., wheat, 10, 49, 86.
 guyotiana, *Bromus* spp., 159.
 horrida, rice, 141.
 levis, wheat, 148.
 tritici, wheat, 148.
 Tipburn (non-par.), avocado, 183.
 cabbage, 206.
 cauliflower, 204.
 lettuce, 32, 220.
 potato, 100, 244.

Tolyposporella chrysopogonis,
Sorghastrum nutans, 163.
 Translucent spot (undet.), tung-oil
 tree, 248.
Tranzschelia pruni-spinosae, peach,
 166.
 plum, 187.
 Tubers but no tops (non-par.), potato,
 245.
 Twig blight, *Cryptomeria*, 259.
 holly, 265.
Tylenchus tritici, wheat, 49.

U

Uncinula necator, grape, 118, 194.
Uredo behnickiana, *Cattleya dowiana*
aurea, 275.
lucumae, *Lucuma nervosa*, 173.
Urocystis agropyri, *Sitanion jubatum*,
 163.
cephulae, onion, 198.
gladioli, *gladiolus*, 279.
occulta, rye, 49, 90, 142.
Uromyces spp., clover, 156.
bicolor, *Allium canadense*, 272.
caryophyllinus, carnation, 278.
fallens, clover, 156.
Trifolium pratense, 156.
hordeinus, *Hordeum pusillum*, 162.
hybridi, clover, 156.
peckianus, *Aristida oligantha*, 159.
phaseoli typica, bean, 230.
 green beans, 105.
 lima bean, 228.
phaseoli vignae, cowpea, 157.
striatus, alfalfa, 154.
trifolii, clover, 156.
Trifolium hybridum, 156.
Trifolium repens, 156.
repentis, clover, 156.
Ustilago spp., barley, 88, 139.
avenae, oats, 92, 136.
bullata, *Agropyron* spp., 158.
Bromus spp., 160.
Elymus spp., 161.
Festuca idahoensis, 162.
Hordeum nodosum, 162.

Ustilago cynodontis, *Cynodon*
dactylon, 160.
hordei, barley, 88, 138.
Elymus glaucus, 161.
hypodytes, *Elymus* spp., 161.
Oryzopsis hymenoides, 162.
Stipa comata, 163.
levis, oats, 92, 136.
nuda, barley, 139.
perennans, *Arrhenatherum elatius*,
 159.
sitanii, *Sitanion jubatum*, 163.
striaeformis, *Agropyron* spp., 158.
Agrostis alba, 159.
Elymus sibiricus, 161.
Phleum pratense, 162.
Poa pratensis, 163.
tritici, barley, 49.
 rye, 49.
 wheat, 10, 49, 86, 148.
zeae, field corn, 94, 151.
 popcorn, 152.
 sweet corn, 96, 152.

V

Valsa sp., peach, 166.
leucostoma, willow, 270.
 Variegation (undet.), strawberry,
 173.
 Vascular necrosis, mangel-wurzel,
 202.
 Veinbanding (virus), potato, 244.
Venturia inaequalis, apple, 114, 178.
pyracanthae, firethorn, 285.
pyrina, pear, 112, 189.
Verticillium sp., *Acer* spp., 262.
Acer platanoides, 262.
chrysanthemum, 276.
 eggplant, 236.
 elm, 271.
 mint, 252.
 potato, 241.
 snapdragon, 273.
 sumac, 269.
albo-atrum, boysenberry, 191.
chrysanthemum, 276.
 cotton, 250.

Verticillium albo-atrum, eggplant, 236.
 elm, 271.
 honey dew melon, 212.
 maple, see *Verticillium* sp.
 peach, 166.
Physalis francheti, 284.
 raspberry, 192.
Rhus cotinus, 269.
 snapdragon, 273.
 tomato, 103, 224.
 dahliae, chrysanthemum, 276.
 eggplant, 236.
 maple, see *Verticillium* sp.
 wilt, watermelon, 210.
 Virus, hops, 252.
 diseases, bean, 232.
 cantaloupe, 211.
 celery, 200.
 cherry, 113.
 dry beans, 106.
 green beans, 105.
 green peas, 107, 108.
 lettuce, 220.
 peach, 116, 167.
 pepper, 208.
 potato, 98, 243.
 squash, 215.
 strawberry, 117, 172.
 tobacco, 256.
 tomato, 103, 104.
 Water core (non-par.), apple, 181.
 Weak hills, hops, 252.
 neck, sorghum, 143.
 Weather data for 1938, 125-134.
 injuries, apple, 182.
 cherry, 186.
 grape, 194.
 peach, 168.
 strawberry, 173.
 wheat, 149.
 White-tip (non-par.), rice, 141.
 tree (non-par.), tung-oil tree, 248.

Wind injury, prune, 184.
 Winter injury, alfalfa, 155.
 apple, 182.
 cherry, 186.
 grape, 194.
 holly, 265.
 peach, 168.
 raspberry, 193.
 strawberry, 173.
 Witches'-broom, bean, 232.
 rhododendron, 285.
 Witches'-broom (virus), locust, 269.
 Withered ends, cucumber, 31.

X

X-disease, see yellow-red virosis.
 Xanthosis (virus), strawberry, 172.

Y

Yellow dwarf (virus), onion, 198.
 potato, 244.
 Yellow edge (virus), strawberry, 172.
 leaf, strawberry, see variegation.
 Yellow-red virosis (virus), choke-
 cherry, 167.
 peach, 167.
Prunus virginiana, 267.
 Yellowing (boron deficiency), alfalfa, 155.
 Yellows (aster yellows virus), *Callistephus chinensis*, 275.
 carrot, 217.
 chrysanthemum, 276.
 parsley, 228.
 Yellows (leaf-hopper), alfalfa, 155.
 Yellows, (non-par.), squash, 215.
 Yellows (virus), *Cichorium endivia*, 209.
 eggplant, 236.
 peach, 167.

ERRATA

On page 160 under *BUCHLOE DACTYLOIDES*, read *Anguillulina agrostidis* instead of *Anguillulina agrostis*.

On page 161 read *Puccinia graminis*, stem rust, on *E. canadensis* instead of *Puccinia condensatus*, stem rust, on *E. canadensis*.