

Prepared by the Department of Plant Pathology

Plant Diseases in Kentucky



UNIVERSITY OF KENTUCKY · COLLEGE OF AGRICULTURE
COOPERATIVE EXTENSION SERVICE
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PLANT DISEASE DIAGNOSTIC LABORATORY

SUMMARY OF PLANT DISEASES

1976 - 1981

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TABLE OF CONTENTS

Introduction	2
Table 1. Total Specimens by Crop Category	3
Table 2. Total Specimens by Problem Category.	3
Table 3. Special Laboratory Tests	4
Explanatory Remarks	4
Agronomic Crops	5
Corn	5
Soybeans	7
Tobacco	8
Fruit Crops	10
Small Fruits	10
Tree Fruits	11
Herbs	13
Ornamentals	14
Herbaceous Ornamentals	14
Indoor Plants	17
Turfgrass	20
Woody Ornamentals	22
Vegetables	33
Miscellaneous	37

PLANT DISEASE DIAGNOSTIC LABORATORY
SUMMARY OF PLANT DISEASES

1976 - 1981

The following is a listing of plant diseases and abiotic disorders diagnosed in the Plant Disease Diagnostic Laboratory during the years 1976-1981. This summary should not be used as a means of determining the relative frequency that certain diseases occur in Kentucky. Many of the more common diseases are recognized in the field and therefore are not generally sent to the Diagnostic Lab. Nevertheless, this summary can serve as an index of the types and variety of problems handled by the Lab over the past six years. Several new problems have been identified as a result of the Lab's services. A few highlights follow:

- Thread blight (Ceratobasidium sp.) was diagnosed for the first time in 1979. This disease continues to present problems for apple growers in eastern Kentucky.

- The pine wood nematode (PWN) was identified for the first time in Kentucky in 1979. The PWN has now been identified in Scots, Austrian, eastern white and Virginia pines in 15 counties scattered over the state.

- Blue mold posed a serious threat to tobacco in the field for the first time in 1979. The record high number of tobacco samples submitted in 1980 stemmed from concern over blue mold (many suspected blue mold infected samples did not, in fact, have blue mold).

- The number of soybean plant and/or soil samples for soybean cyst nematode (SCN) diagnosis has increased over the past six years. SCN has been identified in new areas and race determinations have been made as a cooperative effort of the Diagnostic Lab personnel and Dr. R. A. Chapman (Research Nematologist, Department of Plant Pathology).

Table 1. TOTAL SPECIMENTS BY CROP CATEGORY

Crop Category	Year					
	76	77	78	79	80	81
Agronomic (total)	1607	1237	915	1380	2431	2314
Tobacco	1013	706	531	707	1885	1597
Other Agronomic Crops	594	531	384	673	546	717
Fruit Crops (total)	285	333	262	430	444	408
Small Fruits	100	120	78	145	126	144
Tree Fruits	185	213	184	285	318	264
Herbs	8	5	9	8	10	11
Ornamentals (total)	1465	1174	837	1023	1233	1038
Herbaceous Ornamentals	50	52	27	35	61	31
Indoor Plants	175	125	100	90	96	65
Turfgrass	75	81	49	70	54	97
Woody Ornamentals	1165	916	661	828	1022	845
Vegetables	572	474	384	390	476	460
Miscellaneous	5	24	12	32	125	102
Total Specimens	3942	3247	2419	3263	4719	4333

Table 2. TOTAL SPECIMENS BY PROBLEM CATEGORY

Problem Category	Year					
	76	77	78	79	80	81
Abiotic Problems	1028	727	393	663	863	977
Biotic Diseases	1605	1300	1033	1508	2074	1946
Chemical Injury	250	187	132	98	172	171
Inadequate Specimen	392	432	105	294	287	283
Insect Injury	327	204	129	155	307	256
No Diagnosis	335	373	615	514	891	598
Miscellaneous	5	24	12	32	125	102
Total Specimens	3942	3247	2419	3263	4719	4333

Table 3. SPECIAL LABORATORY TESTS PERFORMED (1980 and 1981).¹

Test	Number of Specimens	
	1980	1981
Cultured or inoculated	207	305
Nematode extractions (total)	205	264
Soybean cyst nematode	148	258
Pinewood nematode	49	29
Other	8	15
Virus assays (total)	5	48
Indicator plants	2	9
Leaf dip (electron microscope)	3	10
ELISA	0	32

¹ This information is not available for 1976-1979.

EXPLANATORY REMARKS

In the interest of space, many of the abiotic problems have been lumped together. Weather-related problems, cultural problems and nutritional problems are generally included under "environmental stress". Some specific stresses have been separated out where significant numbers occur.

"No diagnosis" indicates that no pathogen was observed on the sample submitted, and we were unable to pinpoint the exact cause of the problem.

Insect problems were generally identified or verified by a specialist in the Department of Entomology. Likewise, chemical injury on agronomic crops was generally identified by a Weed Control Specialist in the Agronomy Department.

An asterisk (*) following a disease name indicates that the exact pathogen was not identified, or at least not indicated on the diagnostic form.

Samples designated as having a "root problem" had top symptoms suggestive of root dysfunction and evidence of root degeneration though no biotic or abiotic cause could be determined.

5

AGRONOMIC

	76	77	78	79	80	81
<u>Alfalfa (Medicago sp.)</u>						
<u>Anthraco</u> se (<u>Colletotrichum</u>)	7	8	5	2	2	4
<u>Bacterial leaf spot</u> (<u>Xanthomonas</u>)	0	0	0	0	2	2
<u>Bacterial wilt</u> (<u>Corynebacterium</u>)	0	0	0	1	0	1
<u>Common leaf spot</u> (<u>Pseudopeziza</u>)	14	10	4	26	1	1
<u>Crown rot complex</u>	0	0	0	0	0	3
<u>Downy mildew</u> (<u>Peronospora</u>)	0	0	0	0	0	1
<u>Environmental stress</u>	0	0	0	0	9	2
<u>Fusarium root/crown rot</u>	2	2	4	0	5	6
<u>Leaf rust</u> (<u>Uromyces</u>)	0	0	0	0	0	1
<u>Leptosphaerulina leaf spot</u>	4	5	4	6	1	12
<u>Nutritional</u>	0	1	5	4	2	8
<u>Phytophthora root rot</u>	1	2	0	0	2	3
<u>Pythium root rot</u>	1	0	0	0	0	1
<u>Rhizoctonia root/crown rot</u>	1	0	0	2	2	3
<u>Root knot nematode</u> (<u>Meloidogyne</u>)	0	0	0	0	0	1
<u>Sclerotinia crown and stem rot</u>	5	6	3	15	7	13
<u>Spring black stem</u> (<u>Phoma</u>)	2	0	2	3	2	5
<u>Stemphylium leaf spot</u>	5	0	1	13	1	1
<u>Summer blackstem</u> (<u>Cercospora</u>)	0	0	1	0	1	1
<u>Verticillium wilt</u>	1	0	0	0	0	0
<u>Barley (Hordeum sp.)</u>						
<u>Bacterial (*)</u>	1	0	0	0	0	0
<u>Barley yellow dwarf virus</u>	1	0	0	0	0	4
<u>Environmental stress</u>	0	0	1	0	0	0
<u>Head scab</u> (<u>Fusarium</u>)	0	1	0	3	0	1
<u>Helminthosporium leaf spot</u>	1	1	1	0	0	2
<u>Leaf rust</u> (<u>Puccinia</u>)	1	0	0	0	0	0
<u>Loose smut</u> (<u>Ustilago</u>)	1	0	0	0	0	0
<u>Rhynchosporium leaf scald</u>	0	0	0	1	0	1
<u>Clover (Trifolium sp.)</u>						
<u>Anthraco</u> se (<u>Colletotrichum</u>)	1	2	1	0	0	1
<u>Bean yellow mosaic virus</u>	1	1	0	0	0	1
<u>Cercospora leaf spot</u>	0	0	1	0	0	0
<u>Environmental stress</u>	0	0	0	0	0	1
<u>Fusarium root rot</u>	0	0	1	0	0	0
<u>Powdery mildew</u> (<u>Erysiphe</u>)	0	0	0	1	0	0
<u>Rhizoctonia black patch</u>	1	0	0	1	0	0
<u>Root problem</u>	0	0	0	0	0	2
<u>Sclerotinia crown rot</u>	0	1	0	1	0	0
<u>Spring black stem</u> (<u>Phoma</u>)	1	0	0	0	0	0
<u>Stemphylium target spot</u>	0	0	2	2	0	0
<u>Yellow patch</u>	0	0	0	0	0	1
<u>Corn (Zea sp.)</u>						
<u>Alternaria</u>	1	1	1	1	0	0
<u>Anthraco</u> se (<u>Colletotrichum</u>)	28	9	2	8	9	3
<u>Ascochyta leaf spot</u>	0	1	0	0	1	0
<u>Aspergillus ear rot</u>	2	1	0	0	1	0

	76	77	78	79	80	81
Corn (cont.)						
Bacterial leaf blight (<u>Pseudomonas</u>)	0	0	1	0	0	0
Bacterial stalk rot (<u>Erwinia</u>)	3	3	1	4	0	2
Buggy whipping	0	0	0	0	1	1
<u>Cercospora</u> grey leaf spot	0	3	0	0	0	0
Charcoal rot (<u>Macrophomina</u>)	4	6	0	0	1	1
<u>Cladosporium</u> ear rot	2	2	0	0	0	0
Common maize rust (<u>Puccinia</u>)	13	0	6	7	0	11
Crazy top (<u>Sclerophthora</u>)	3	0	0	0	1	3
<u>Diplodia</u> ear rot	1	3	1	0	0	3
<u>Diplodia</u> stalk rot	1	11	0	8	2	1
Environmental stress	13	8	0	20	8	21
Eyespot (<u>Kabatiella</u>)	0	0	1	0	0	0
<u>Fusarium</u> ear rot	2	6	2	1	2	3
<u>Fusarium</u> leaf spot	0	0	0	0	1	0
<u>Fusarium</u> seedling blight	0	1	1	3	4	1
<u>Fusarium</u> stalk rot	0	2	1	3	0	0
Genetic abnormality	1	2	0	0	0	2
<u>Gibberella</u> stalk rot	0	10	0	6	0	1
<u>Helminthosporium</u> leaf spot	0	5	3	7	0	1
Holcus spot	0	0	0	0	0	1
Leaf burn	0	0	0	0	1	6
Northern corn leaf blight (<u>H. turcicum</u>)	7	9	2	5	2	3
Nutritional (total)	12	22	21	48	39	34
Acid soil	0	2	3	5	1	6
Fertilizer burn	1	0	0	1	3	1
General	5	13	15	15	8	13
Manganese toxicity	2	6	1	4	1	0
Nitrogen deficiency	2	0	0	3	13	2
Phosphorus deficiency	1	0	3	3	0	0
Potassium deficiency	1	1	1	0	0	0
Zinc deficiency	0	0	0	17	13	12
<u>Penicillium</u> ear rot	0	4	0	0	1	1
<u>Phyllosticta</u> leaf spot	12	3	0	0	0	0
<u>Physoderma</u> brown spot	2	1	5	0	0	3
Pokkah boeng (<u>Fusarium</u>)	0	0	1	0	0	0
Purple leaf sheath	1	0	0	0	0	0
<u>Pythium</u> stalk rot	5	1	2	2	0	1
<u>Rhizoctonia</u>	0	0	0	0	3	0
Root problem	0	0	0	1	4	2
Smut (<u>Ustilago</u>)	2	3	1	3	0	1
Southern corn leaf blight (<u>H. maydis</u>)	1	3	6	25	9	20
Stewart's wilt (<u>Erwinia</u>)	20	7	2	4	5	10
Virus complex	12	9	12	7	7	9
Hay (Various)						
Moldy	1	0	0	0	2	1
Lespedeza (<u>Lespedeza</u> sp.)						
<u>Fusarium</u> root rot	0	0	0	0	1	0
<u>Piricularia</u> grease spot	0	1	0	0	0	0
Oats (<u>Avena</u> sp.)						
Bacterial stripe (<u>Pseudomonas</u>)	0	0	0	0	0	1
Barley yellow dwarf virus	1	0	3	0	1	0
Environmental stress	0	0	0	0	1	0
<u>Fusarium</u> seedling blight	0	0	0	1	0	0

	76	77	78	79	80	81
Peanut (<u>Arachis</u> sp.)						
Bacterial leaf spot (*)	1	0	0	0	0	0
<u>Cladosporium</u> black mold	0	0	0	0	0	1
<u>Helminthosporium</u> leaf spot	0	1	0	0	0	0
Stem rust (<u>Puccinia</u>)	0	0	1	0	0	0
Orchardgrass (<u>Dactylis</u> sp.)						
Brown stripe (<u>Scolecotrichum</u>)	0	1	0	0	0	0
Fungal leaf spot (*)	0	0	0	0	0	1
<u>Fusarium</u> root rot	0	0	0	0	0	1
Leaf rust (<u>Uromyces</u>)	0	1	0	0	0	0
Nutritional	0	0	0	0	0	1
<u>Septoria</u> leaf spot	0	0	0	0	1	0
Rye (<u>Secale</u> sp.)						
Barley yellow dwarf virus	0	0	0	0	0	1
Sorghum (<u>Sorghum</u> sp.)						
Charcoal rot (<u>Sclerotium</u>)	2	0	0	0	0	0
Environmental stress	0	2	0	0	0	0
<u>Gibberella</u> stalk rot	0	1	0	0	2	1
<u>Helminthosporium</u> leaf spot	0	0	0	0	2	0
Maize dwarf mosaic virus	3	0	0	0	0	0
Powdery mildew (*)	0	0	1	0	0	0
<u>Pythium</u> root rot/damping-off	1	1	0	0	0	0
Soybean (<u>Glycines</u> sp.)						
<u>Alternaria</u> leaf spot	1	0	0	0	1	1
Anthracnose (<u>Colletotrichum</u>)	1	5	7	7	7	6
Bacterial blight (<u>Pseudomonas</u>)	1	1	0	5	0	0
Bean pod mottle virus	0	0	0	0	0	2
Brittle stem	0	0	0	0	1	0
Brown stem rot (<u>Phialophora</u>)	2	1	0	1	12	1
Charcoal rot (<u>Macrophomina</u>)	2	3	3	0	0	0
Downy mildew (<u>Peronospora</u>)	5	3	1	0	0	1
Environmental stress	2	4	0	3	3	7
Frogeye leaf spot (<u>Cercospora</u>)	0	4	1	1	1	2
<u>Fusarium</u> pod and collar rot	0	2	0	1	9	0
Leaf burn	0	0	0	0	0	1
<u>Neocosmospora</u> stem rot	3	0	0	0	0	0
Nutritional (total)	7	6	3	1	2	2
Excess fertilizer	1	0	0	0	0	0
General	4	6	3	1	0	1
Manganese deficiency	0	0	0	0	1	1
Nitrogen deficiency	2	0	0	0	0	0
Potassium deficiency	0	0	0	0	1	0
<u>Phyllosticta</u> leaf spot	2	0	1	0	0	1
<u>Phytophthora</u> root rot	0	0	1	0	0	2
Pod & stem blight (<u>Diaporthe</u>)	3	12	7	1	1	2
Powdery mildew (<u>Microsphaera</u>)	1	0	0	0	0	0
Purple seed stain (<u>Cercospora</u>)	1	0	0	0	0	0
<u>Pythium</u> root rot	3	0	1	7	8	1
Rhizobium-induced chlorosis	2	1	0	0	1	0
<u>Rhizoctonia</u> root rot	8	21	3	11	22	26
Root problem	2	3	0	3	1	2
<u>Septoria</u> brown spot	12	15	10	38	12	2
Southern blight (<u>Sclerotium</u>)	1	3	5	3	0	2

	76	77	78	79	80	81
Soybean (Cont.)						
Soybean cyst nematode (<u>Heterodera</u>)	20	61	58	43	125	209
Soybean mosaic virus	1	1	0	0	0	3
Stem canker (<u>Diaporthe</u>)	0	0	0	0	0	5
Switchgrass & Millet (<u>Panicum</u> sp.)						
<u>Ascochyta</u> leaf spot	1	0	1	0	0	0
<u>Cercospora</u> leaf spot	0	1	0	0	0	0
<u>Helminthosporium</u> leaf spot	0	1	0	0	0	0
<u>Piricularia</u> grease spot	0	1	0	0	0	0
Timothy (<u>Phleum</u> sp.)						
Anthraxnose (<u>Colletotrichum</u>)	0	0	1	0	0	0
Fungal leaf spot (*)	0	1	0	0	0	0
Leaf rust (<u>Puccinia</u>)	0	1	0	0	0	0
Tobacco (<u>Nicotiana</u> sp.)						
Alfalfa mosaic virus	1	0	0	0	0	0
Algae & liverworts	0	2	0	0	19	1
<u>Alternaria</u> brown spot	7	12	4	5	20	25
Angular leaf spot (<u>Pseudomonas</u>)	22	27	10	11	132	103
Anthraxnose (<u>Colletotrichum</u>)	2	8	1	3	15	26
Bacterial soft rot (*)	0	0	0	0	0	1
Bacterial hollow stalk rot (<u>Erwinia</u>)	14	17	1	6	3	9
Blackleg (<u>Erwinia</u>)	0	0	6	1	12	7
Black root rot (<u>Thielaviopsis</u>)	13	3	1	49	17	6
Black shank (<u>Phytophthora</u>)	157	86	130	145	571	272
Blue mold (<u>Peronospora</u>)	0	0	0	42	109	67
<u>Corynespora</u> leaf spot	0	0	0	0	1	0
Crown & stem rot (*)	0	0	0	0	1	0
Cucumber mosaic virus	1	1	0	0	0	0
Damping-off	2	11	0	5	7	4
Dodder (<u>Cuscuta</u>)	1	0	0	0	0	1
Early flowering	6	0	0	1	0	5
Environmental stress	104	99	56	52	84	100
False broom rape	0	3	0	1	1	1
Frenching	13	4	10	12	8	12
Frogeye leaf spot (<u>Cercospora</u>)	0	0	0	0	1	21
<u>Fusarium</u> wilt	0	1	1	3	8	9
Genetic variegation	4	1	0	1	6	8
Houseburn	0	0	0	0	3	2
Improper curing (Piebald)	0	0	0	0	0	4
Leaf scald	6	1	4	2	102	21
Leaf scorch/burn	5	3	0	5	5	4
Nutritional (total)	250	112	58	154	201	305
Acid soil/Manganese toxicity	111	61	39	116	85	127
Calcium deficiency	1	5	1	0	3	6
Excess fertilizer	20	12	1	5	62	35
General	23	0	2	3	15	49
Nitrogen deficiency	7	11	4	2	11	25
Potassium deficiency	4	6	2	2	2	31
Temporary Phosphorus deficiency	80	17	9	26	23	32
Peanut stunt virus	0	0	0	0	2	0
<u>Pythium</u> soft rot	8	15	12	3	97	4
Ragged spot (<u>Ascochyta</u>)	1	0	0	0	0	5
<u>Rhizoctonia</u> sore shin	11	11	4	4	11	28
Root knot nematode (<u>Meloidogyne</u>)	0	0	1	1	2	0

	76	77	78	79	80	81
Tobacco (Cont.)						
Root problem	4	0	0	1	16	15
Sooty mold	0	0	0	0	0	5
Tobacco etch virus	55	8	1	5	7	22
Tobacco mosaic virus	1	0	0	0	0	0
Tobacco ringspot virus	10	3	9	1	13	2
Tobacco streak virus	0	1	0	0	0	4
Tobacco vein mottling virus	19	2	4	0	1	14
Tobacco virus complex	11	8	4	3	0	101
Vetch (<u>Vicia</u> sp.)						
Anthracnose (<u>Colletotrichum</u>)	1	0	0	0	0	0
Ascochyta leaf spot	1	0	1	0	2	1
Sclerotinia crown and stem rot	0	0	0	0	1	0
Wheat (<u>Triticum</u> sp.)						
Anthracnose (<u>Colletotrichum</u>)	1	0	0	0	0	0
Aspergillus seed rot	0	0	0	0	1	0
Barley yellow dwarf virus	7	0	1	6	8	24
Environmental stress	2	0	1	0	0	1
Eyespot (<u>Pseudocercospora</u>)	0	0	1	0	0	0
Glume blotch (<u>Septoria nodorum</u>)	14	2	3	3	7	11
Head scab (<u>Fusarium</u>)	5	7	2	7	6	3
Helminthosporium leaf spot	0	0	0	0	1	0
Leaf rust (<u>Puccinia</u>)	3	0	0	0	0	4
Loose smut (<u>Ustilago</u>)	2	0	0	0	0	0
Powdery mildew (<u>Erysiphe</u>)	3	3	0	0	0	6
Pythium damping-off	0	0	0	0	1	0
Rhizoctonia canker	0	1	0	0	0	0
Root problem	0	0	0	0	1	0
Septoria leaf blotch	7	2	1	4	2	1
Sooty mold	0	0	1	2	0	0
Take-all (<u>Gaeumannomyces</u>)	11	3	0	1	1	5
Tan spot (<u>Pyrenophora</u>)	0	0	0	0	0	5
Virus (*)	0	1	0	0	0	0
Wheat streak mosaic virus	0	0	0	0	0	1
Wheat spindle streak virus	4	0	0	0	3	13

FRUIT CROPS

SMALL FRUITS

	76	77	78	79	80	81
Blueberry (<u>Vaccinium</u> sp.)						
Anthracnose (<u>Gloeosporium</u>)	3	0	0	0	0	0
Botrytis blossom blight	0	0	0	1	0	0
Environmental stress	2	2	1	0	1	0
Phomopsis twig & cane blight	0	0	0	1	1	0
Brambles - Blackberry & Raspberry (<u>Rubus</u> sp.)						
Anthracnose (<u>Elsinoe</u>)	7	2	1	3	9	1
Botrytis grey mold	0	0	0	1	1	0
Cane blights (<u>Gnomonia</u> , <u>Leptosphaeria</u>)	0	1	0	1	2	0
Cane/Crown gall (<u>Agrobacterium</u>)	0	1	0	2	0	0
Environmental stress	5	1	1	3	2	0
Fireblight (<u>Erwinia</u>)	0	0	0	0	0	2
Fungal leaf spots (<u>Phyllosticta</u> , <u>Septoria</u> and others)	0	2	0	1	2	0
Orange rust (<u>Gymnoconia</u>)	0	0	2	3	0	2
Powdery mildew (<u>Sphaerotheca</u>)	0	0	0	1	1	0
Root problem	0	0	0	0	1	1
Slime mold	0	0	0	0	0	1
Spur blight (<u>Didymella</u>)	1	2	0	0	1	0
Sterility and leaf curl viruses	1	1	2	0	2	4
Verticillium wilt	0	0	0	0	2	1
Gooseberry, (<u>Ribes</u> sp.)						
Botryosphaeria cane blight	1	0	0	1	0	0
Grape (<u>Vitis</u> sp.)						
Anthracnose (<u>Elsinoe</u>)	0	0	1	1	0	0
Blackrot (<u>Guignardia</u>)	4	3	6	12	0	6
Crown gall (<u>Agrobacterium</u>)	0	0	1	2	0	0
Downy mildew (<u>Plasmopara</u>)	0	0	0	0	0	1
Environmental stress	5	8	0	4	3	8
Nematode problem (*)	1	0	0	0	0	0
Pestalotia on canes	0	0	0	0	1	0
Phomopsis cane & leaf blight	0	1	0	0	0	0
Powdery mildew (<u>Uncinula</u>)	0	0	1	0	0	0
Root problem	1	0	0	1	0	0
Strawberry (<u>Fragaria</u> sp.)						
Black root rot complex	6	20	15	6	11	18
Botrytis grey mold	0	0	1	0	2	3
Dendrophoma leaf blight	5	3	0	1	3	3
Diplocarpon leaf scorch	4	2	1	0	0	0
Environmental stress	2	1	1	4	1	4
Mycosphaerella leaf spot	2	0	1	4	0	5
Powdery mildew (<u>Sphaerotheca</u>)	0	0	1	0	0	0
Pythium root rot	4	2	0	0	1	0
Red stele (<u>Phytophthora</u>)	4	2	1	15	3	1

Strawberry (Cont.)

<u>Sclerotinia</u> crown rot	0	0	0	0	0	2
Spring yellows	0	1	0	0	0	0
Strawberry crinkle or other viruses	1	1	0	0	0	0
<u>Verticillium</u> wilt	4	2	3	1	2	0

TREE FRUITS

	76	77	78	79	80	81
Apple (<u>Malus</u> sp.)						
Bark necrosis	0	0	0	0	0	2
Bitter pit & cork spot	1	0	3	2	2	2
Bitter rot (<u>Glomerella</u>)	1	3	1	0	0	3
Black rot canker (<u>Physalospora</u>)	5	4	5	4	1	2
Blotch (<u>Phyllosticta</u>)	1	0	1	0	0	1
Bot rot (<u>Botryosphaeria</u>)	0	0	0	3	0	3
Burr knot	0	0	1	0	1	3
Cankers (<u>Nectria</u> and others)	1	0	0	1	0	0
Cedar-apple rust (<u>Gymnosporangium</u>)	4	18	5	11	9	8
Collar rot (<u>Phytophthora</u>)	3	3	0	0	2	3
Crown gall (<u>Agrobacterium</u>)	0	1	1	0	4	0
Damping-off	0	0	0	0	0	1
Environmental stress	8	11	4	8	9	6
Fireblight (<u>Erwinia</u>)	10	6	10	29	33	16
Flyspeck (<u>Microthyriella</u> & Sooty blotch (<u>Gloeodes</u>)	3	2	4	11	3	5
Frog-eye leaf spot (<u>Physalospora</u>)	3	12	8	12	8	5
Grey mold rot (<u>Botrytis</u>)	0	0	0	1	0	0
Jonathan Spot	0	0	0	0	0	1
Nutritional	3	4	3	0	0	1
<u>Pestalotia</u> leaf spot	0	0	1	0	0	0
<u>Phomopsis</u> rough bark	0	0	0	0	1	0
Powdery mildew (<u>Podosphaera</u>)	9	1	1	0	3	0
Quince rust (<u>Gymnosporangia</u>)	0	1	0	0	1	1
<u>Rhizoctonia</u> root rot	0	0	0	0	1	0
Root problem	3	0	0	3	2	2
Scab (<u>Venturia</u>)	6	4	5	37	5	4
Sooty mold	0	0	0	0	0	2
Southern blight (<u>Sclerotium</u>)	0	0	0	0	0	1
Thread blight (<u>Ceratobasidium</u>)	0	0	0	3	2	2
Virus (*)	1	0	0	1	0	0
Water core	0	0	0	0	0	1
Woody decay (*)	1	1	1	0	0	1
Cherry (<u>Prunus</u> sp.)						
<u>Armillaria</u> root rot	0	0	1	0	0	0
Bacterial canker (<u>Pseudomonas</u>)	0	0	1	0	0	0
Bacterial leaf spot (<u>Xanthomonas</u>)	0	1	0	0	0	0
Black knot (<u>Dibotryon</u>)	0	1	2	1	0	0
Brown rot (<u>Monilinia</u>)	0	1	2	2	3	1
Cherry leaf spot (<u>Coccomyces</u>)	2	2	2	2	1	2
Crown gall (<u>Agrobacterium</u>)	0	0	0	0	1	0
Environmental stress	3	4	0	3	2	4
Graft incompatibility	0	0	0	0	0	1
<u>Phyllosticta</u> leaf spot	0	1	0	0	0	0
Powdery mildew (<u>Podosphaera</u>)	0	1	0	1	1	5
Root problem	2	2	0	1	1	1

	76	77	78	79	80	81
Peach, Nectarine, Apricot (<u>Prunus</u> sp.)						
<u>Armillaria</u> root rot	0	0	0	0	2	0
Bacterial canker (<u>Pseudomonas</u>)	1	0	0	0	1	3
Bacterial spot (<u>Xanthomonas</u>)	2	2	0	0	0	5
Brown rot (<u>Monilinia</u>)	3	2	6	3	0	4
Crown gall (<u>Agrobacterium</u>)	0	1	2	0	0	2
Environmental stress	6	5	2	20	9	1
Graft incompatibility	0	0	0	0	0	1
Leaf curl (<u>Taphrina</u>)	2	0	0	3	9	4
Nematode problem	0	2	0	0	2	1
Nutritional	8	6	7	10	7	7
Peach tree shortlife	0	0	0	0	1	1
Perennial canker (<u>Cytospora</u>)	3	1	1	3	1	1
Ripe rot (<u>Glomerella</u>)	1	0	0	0	0	0
Root problem	1	0	0	1	3	1
Scab (<u>Cladosporium</u>)	2	2	2	5	4	2
Sooty mold	0	0	0	0	0	1
Pear (<u>Pyrus</u> sp.)						
<u>Armillaria</u> root rot	0	1	0	0	0	0
Environmental stress	2	0	0	2	6	4
<u>Fabraea</u> leaf blight	3	1	0	0	0	0
Fireblight (<u>Erwinia</u>)	4	22	9	5	8	14
Root problem	1	0	0	1	0	0
Scab (<u>Venturia</u>)	0	1	0	2	0	0
Sooty mold	0	0	0	0	2	0
Pecan (<u>Carya</u> sp.)						
Environmental stress	2	0	0	0	0	1
Pecan scab (<u>Fusicladium</u>)	0	0	0	2	0	0
Pink mold (<u>Tricothecium</u>)	0	1	0	0	0	0
Persimmon (<u>Diospyras</u> sp.)						
<u>Verticillium</u> wilt	0	0	0	0	0	1
Plum (<u>Prunus</u> sp.)						
Bacterial fruit rot (*)	0	0	0	0	1	0
Bacterial spot (<u>Xanthomonas</u>)	0	1	0	0	1	0
Black knot (<u>Dibotryon</u>)	12	5	4	6	14	3
Brown rot (<u>Monilinia</u>)	0	3	1	1	1	0
Environmental stress	1	4	1	1	2	0
Fungal leaf spots (<u>Cercospora</u> and others)	0	2	0	0	0	1
Graft incompatibility	0	0	0	0	0	1
Perennial canker (<u>Cytospora</u>)	0	0	0	2	0	0
Plum pockets (<u>Taphrina</u>)	4	3	0	0	4	6
Root problem	0	0	0	1	0	0
Sooty mold	0	0	1	0	0	1
Quince (<u>Chaenomeles</u> sp.)						
Fireblight (<u>Erwinia</u>)	0	0	0	0	0	1
Leaf scorch	0	1	0	0	0	0
Root problem	1	0	0	0	0	0

HERBS

	76	77	78	79	80	81
Basil (<u>Ocimum</u> sp.)						
<u>Rhizoctonia</u> root rot	0	0	1	0	0	0
Bromelia (<u>Bromelia</u> sp.)						
<u>Marasmius</u> collar & root decay	1	0	0	0	0	0
Browallia (<u>Browallia</u> sp.)						
<u>Fusarium</u> wilt	1	0	0	0	0	0
Cocklebur (<u>Xanthium</u> sp.)						
Rust (<u>Puccinia</u>)	0	0	2	0	0	0
Echeveria (<u>Echeveria</u> sp.)						
<u>Rhizoctonia</u> stem rot	1	0	0	0	0	0
Ginseng (<u>Panax</u> sp.)						
<u>Alternaria</u> blight	0	0	0	3	0	0
Anthracnose (<u>Colletotrichum</u>)	0	1	1	0	0	0
Bacterial leaf spot (*)	0	0	1	1	1	0
Damping-off	0	0	0	0	1	0
<u>Fusarium</u> root rot	0	0	0	0	2	2
Papery leaf spot	0	0	0	0	0	1
<u>Phytophthora</u> mildew/root rot	0	0	0	0	0	2
<u>Ramularia</u> root rot ("rust")	0	0	0	1	0	1
<u>Rhizoctonia</u> root rot	0	0	1	0	0	1
Root knot nematode (<u>Meloidogyne</u>)	0	0	0	0	0	1
Sooty mold	0	0	0	0	0	1
Lemon balm (<u>Melissa</u> sp.)						
Bacterial leaf spot (*)	0	0	1	0	0	0
Mint (<u>Mentha</u> sp.)						
Fungal canker (*)	1	0	0	0	0	0
<u>Fusarium</u> root rot	0	1	0	0	0	0
Parsley (<u>Petroselinum</u> sp.)						
Bacterial soft rot (<u>Erwinia</u>)	0	0	0	2	0	0

ORNAMENTALS

HERBACEOUS ORNAMENTALS

	76	77	78	79	80	81
<u>Ajuga</u> (<u>Ajuga</u> sp.)						
Environmental stress	1	0	0	0	0	0
<u>Sclerotium</u> crown rot	0	4	1	2	0	5
<u>Buttercup</u> (<u>Ranunculus</u> sp.)						
<u>Fusarium</u> root rot	0	1	0	0	0	0
<u>Celosia</u> (<u>Celosia</u> sp.)						
<u>Alternaria</u> leaf spot	0	0	1	0	0	0
<u>Chrysanthemum</u> (<u>Chrysanthemum</u> sp.)						
Bacterial leaf spot (<u>Pseudomonas</u>)	1	1	0	0	0	0
<u>Botrytis</u> blight	0	1	0	1	0	0
Environmental stress	1	0	0	0	0	0
Fungal leaf spots (<u>Alternaria</u> and others)	3	0	0	0	0	1
<u>Fusarium</u> wilt	0	0	0	1	1	0
Powdery mildew (*)	0	0	0	1	0	0
<u>Pythium</u> root rot	0	1	0	0	1	0
<u>Verticillium</u> wilt	0	1	0	0	0	0
<u>Crownvetch</u> (<u>Coronilla</u> sp.)						
<u>Rhizoctonia</u> root rot	0	0	0	1	1	0
<u>Dahlia</u> (<u>Dahlia</u> sp.)						
Powdery mildew (<u>Erysiphe</u>)	0	1	0	0	0	0
<u>Dianthus</u> (also Carnation, Sweet William - <u>Dianthus</u> sp.)						
<u>Alternaria</u> stem decay	1	0	0	0	0	0
Bacterial leaf spot (<u>Pseudomonas</u>)	1	0	0	0	0	0
<u>Botrytis</u> blight	0	2	0	0	0	0
<u>Pellicularia</u> stem rot	0	0	0	1	0	0
Powdery mildew (*)	1	0	0	0	0	0
<u>Dusty miller</u> (<u>Centaurea</u> sp.)						
<u>Fusarium</u> root rot	1	0	0	0	0	0
<u>Flowers</u> (unidentified)						
<u>Fusarium</u> root rot	0	1	0	0	0	0
<u>Gladiolus</u> (<u>Gladiolus</u> sp.)						
<u>Alternaria</u> leaf spot (secondary)	0	0	0	1	0	0
<u>Botrytis</u> blight	0	0	0	1	0	0
<u>Fusarium</u> brown rot	1	0	0	1	0	0
Internal breakdown	0	0	0	0	1	0

	76	77	78	79	80	81
Groundcover (unidentified)						
Root rot (*)	1	0	0	0	0	0
Hibiscus (<u>Hibiscus</u> sp.)						
Bulb rot (*)	0	0	0	0	1	0
Impatiens (<u>Impatiens</u> sp.)						
Environmental stress	0	2	0	0	0	0
<u>Fusarium</u> root & stem rot	1	1	0	0	0	0
<u>Rhizoctonia</u> damping-off	0	1	0	0	0	0
<u>Verticillium</u> wilt	0	0	0	0	1	0
Iris (<u>Iris</u> sp.)						
Bacterial soft rot (<u>Erwinia</u>)	1	0	1	0	0	0
<u>Didymellina</u> leaf spot	1	0	0	0	1	1
<u>Fusarium</u> rot	0	0	0	0	1	0
<u>Heterosporium</u> leaf spot	1	0	0	0	0	0
<u>Pellicularia</u> crown rot	1	0	0	0	0	0
Rhizome rot (*)	1	0	0	0	0	0
Jack-in-the-pulpit (<u>Arisaema</u> sp.)						
Rust (<u>Uromyces</u>)	0	0	1	0	0	0
Lily (<u>Lilium</u> sp.)						
Anthracnose (<u>Colletotrichum</u>)	0	0	0	0	0	1
Bacterial soft rot (<u>Erwinia</u>)	0	0	0	1	0	0
<u>Botrytis</u> grey mold	0	0	0	0	1	0
Root rot (*)	0	0	0	0	1	0
Russet spot	0	0	0	1	0	0
Marigold (<u>Tagetes</u> sp.)						
<u>Fusarium</u> wilt	0	2	2	0	0	0
Leaf scorch	0	1	0	0	0	0
Nutritional	0	0	0	0	0	1
<u>Septoria</u> leaf spot	0	0	0	1	0	0
Mayapple (<u>Podophyllum</u> sp.)						
Rust (<u>Puccinia</u>)	0	0	0	0	0	1
Morning glory (<u>Ipomoea</u> sp.)						
White rust (<u>Albugo</u>)	0	0	0	0	0	1
Narcissus (<u>Narcissus</u> sp.)						
<u>Ramularia</u> blight	0	0	0	0	1	0
Nasturtium (<u>Tropaeolum</u> sp.)						
Nutritional	1	0	0	0	0	0
<u>Rhizoctonia</u> stem canker	0	0	0	0	0	1
Orchid (unidentified sp.)						
Anthracnose (<u>Physalospora</u>)	0	0	0	0	0	1

	76	77	78	79	80	81
<u>Pachysandra (Pachysandra sp.)</u>						
<u>Gloeosporium</u> leaf spot	1	0	1	0	0	0
<u>Volutella</u> leaf blight	0	0	0	0	2	0
<u>Pansy & Violet (Viola)</u>						
<u>Alternaria</u> leaf spot	0	0	1	0	0	0
<u>Anthraco</u> se (<u>Colletotrichum</u>)	0	0	0	0	1	0
Environmental stress	0	2	0	0	0	0
<u>Powdery</u> mildew (<u>Sphaerotheca</u>)	0	0	0	0	1	0
<u>Rhizoctonia</u> root rot	0	0	1	0	0	0
Root decay (*)	1	0	0	0	0	0
<u>Peony (Paeonia sp.)</u>						
<u>Alternaria</u> leaf spot	0	1	1	0	0	0
<u>Botrytis</u> blight	0	2	0	2	1	0
Nutritional	1	0	0	0	0	0
<u>Phytophthora</u> blight	0	1	0	0	0	0
Root problem	0	0	0	0	0	1
<u>Periwinkle (Vinca sp.)</u>						
<u>Botrytis</u> blight	0	0	0	0	0	1
Environmental stress	1	1	0	1	1	0
<u>Phoma/Phomopsis</u> canker/dieback	3	0	0	1	1	1
<u>Petunia (Petunia sp.)</u>						
Bacterial (*)	0	1	0	0	0	0
<u>Botrytis</u> blight	0	0	1	0	0	0
<u>Fusarium</u> wilt	0	1	1	0	0	0
Nutritional	1	0	0	0	2	0
<u>Pellicularia</u> stem rot	1	0	0	1	0	1
<u>Phytophthora</u> crown rot	0	0	0	1	0	0
<u>Pythium</u> root rot	1	0	0	0	0	0
<u>Sclerotinia</u> stem rot	0	0	0	0	1	1
<u>Phlox (Phlox sp.)</u>						
<u>Powdery</u> mildew (*)	1	0	0	0	3	1
<u>Pyrenochaeta</u> stem blight	1	0	0	0	0	0
<u>Snapdragon (Antirrhinum sp.)</u>						
<u>Botrytis</u> blight	0	1	0	0	0	0
<u>Fusarium</u> stem rot	1	0	1	0	0	0
Nutritional	0	0	0	0	1	0
<u>Pellicularia</u> root rot	1	0	0	0	0	0
<u>Verticillium</u> wilt	1	0	0	0	0	0
<u>Sunflower (Helianthus sp.)</u>						
<u>Pseudomonas</u> leaf spot	0	1	0	0	0	0
<u>Sclerotinia</u> stem rot	0	0	0	1	0	0
<u>Tulip (Tulipa sp.)</u>						
Environmental stress	0	0	0	0	1	0
<u>Penicillium</u> blue mold bulb rot	0	0	0	2	0	0

	76	77	78	79	80	81
<u>Yarrow (Achillea sp.)</u>						
Flower & stalk blight fungus (*)	1	0	0	0	0	0
<u>Zinnia (Zinnia sp.)</u>						
<u>Alternaria</u> blight	0	0	0	2	0	0
Bacterial leafspot (<u>Xanthomonas</u>)	0	0	0	1	0	0
<u>Fusarium</u> stem decay	1	0	0	0	0	0
<u>Rhizoctonia</u> stem rot	1	0	0	0	0	0

INDOOR PLANTS

	76	77	78	79	80	81
<u>African Violet (Saintpaulia sp.)</u>						
Environmental stress	2	2	0	0	1	5
Powdery mildew (<u>Oidium</u>)	0	0	0	0	1	0
<u>Pythium</u> crown rot	1	0	0	0	0	0
Root knot nematode (<u>Meloidogyne</u>)	0	0	1	0	0	0
<u>Amaranthus (Amaranthus sp.)</u>						
Bacterial problem (*)	0	0	1	0	0	0
<u>Begonia (Begonia sp.)</u>						
Bacterial soft rot (*)	1	0	0	0	0	0
<u>Botrytis</u> blight	0	2	2	1	0	2
Environmental stress	4	2	0	3	3	0
Powdery mildew (*)	0	2	1	0	2	1
<u>Rhizoctonia</u> stem decay	0	0	0	0	0	1
<u>Cactus (Various sp.)</u>						
Bacterial soft rot (*)	1	0	0	0	0	0
<u>Coniothyrium</u> stem rot	1	0	0	0	0	0
Environmental stress	0	0	0	0	1	1
Root problem	0	0	0	1	0	0
<u>Coleus (Coleus sp.)</u>						
Environmental stress	0	0	0	0	1	0
Powdery mildew (*)	0	1	0	0	0	0
<u>Coralberry (Symphoricarpus sp.)</u>						
<u>Fusarium</u> root rot	0	0	0	0	0	1
<u>Cyclamen (Cyclamen sp.)</u>						
<u>Botrytis</u> blight	0	0	1	0	0	0
Environmental stress	0	0	0	0	0	1
<u>Dumbcane (Dieffenbachia sp.)</u>						
<u>Anthraco</u> se (<u>Colletotrichum</u>)	0	0	1	0	0	0
Bacterial leafspot (*)	0	0	1	0	0	0
Nutritional	0	0	1	0	0	0
<u>Dracaena (Dracaena sp.)</u>						
Bacterial soft rot (*)	1	1	1	0	0	0
<u>Colletotrichum</u> leaf spot	0	0	1	0	0	0
Environmental stress	2	1	0	0	1	0
Ringspot virus	0	1	0	0	0	0
Root problem	1	0	0	0	0	0

	76	77	78	79	80	81	18
False aralia (<u>Dizygotheca</u> sp.)							
Root problem	0	1	0	0	0	0	
Fern (Various spp.)							
Environmental stress	2	2	0	0	1	0	
Fig, benjamin (<u>Ficus benjamina</u>)							
<u>Alternaria</u> leaf spot	0	0	0	1	0	0	
Anthracnose (<u>Glomerella</u>)	0	1	1	3	0	0	
<u>Botryosphaeria</u> canker	0	0	2	0	0	0	
Crown gall(<u>Agrobacterium</u>)	0	0	0	1	0	0	
Environmental stress	0	3	0	0	1	1	
<u>Phomopsis</u> dieback	1	0	0	0	1	1	
Fuchsia (<u>Fuchsia</u> sp.)							
Environmental stress	1	0	0	0	0	1	
<u>Phytophthora</u> root rot	1	0	0	0	0	0	
Virus disease (*)	1	0	0	0	0	0	
Gardenia (<u>Gardenia</u> sp.)							
<u>Botrytis</u> bud rot	1	0	0	0	0	0	
Environmental stress	1	2	0	0	0	1	
Geranium (<u>Pelargonium</u> sp.)							
<u>Alternaria</u> leaf spot (secondary)	0	1	0	0	0	0	
Bacterial blight (<u>Xanthomonas</u>)	0	5	3	1	5	0	
<u>Botrytis</u> blight	0	0	1	1	2	1	
Environmental stress	4	2	1	1	0	2	
<u>Fusarium</u> black stem rot	1	0	1	0	1	0	
Geranium rust (<u>Puccinia</u>)	1	0	0	0	1	0	
<u>Pythium</u> blackleg	4	0	0	1	1	1	
<u>Verticillium</u> wilt	1	0	1	1	1	0	
Virus (*)	0	0	0	0	1	0	
Gloxinia (<u>Sinningia</u> sp.)							
<u>Botrytis</u> bud rot	1	0	0	0	0	0	
Nutritional	1	1	0	0	0	0	
<u>Rhizoctonia</u> petiole rot	0	0	1	0	0	0	
<u>Sclerotinia</u> crown rot	1	0	0	0	0	0	
Mock orange (<u>Pittosporum</u> sp.)							
<u>Ascochyta</u> leaf spot	0	0	1	0	0	0	
leaf scorch	0	1	0	0	0	0	
Norfolk Island Pine (<u>Araucaria</u> sp.)							
<u>Cytospora</u> canker	0	0	1	0	0	0	
Damping-off (*)	1	0	0	0	0	0	
Environmental stress	1	0	1	0	0	0	
<u>Phoma</u> twig blight	1	0	0	0	0	0	
Palm (Various spp.)							
Anthracnose (*)	0	0	1	0	0	0	
Bacterial (*)	0	0	0	0	0	1	
Environmental stress	1	1	0	1	2	0	
Fungal leaf spots							
(<u>Exosporium</u> , <u>Gloeosporium</u> & <u>Pestalotia</u>)	0	0	2	1	0	0	
<u>Fusarium</u> root rot	1	0	0	0	0	0	
<u>Graphiola</u> false smut	0	0	1	0	0	0	
Stalk decay (*)	0	0	1	0	0	0	

	76	77	78	79	80	81
<u>Peperomia (Peperomia sp.)</u>						
Environmental stress	1	2	0	0	0	0
<u>Phytophthora</u> root rot	1	0	0	0	0	0
<u>Rhizoctonia</u> stem rot	0	1	0	0	0	0
<u>Philodendron (Philodendron sp.)</u>						
Bacterial soft rot (*)	3	0	0	1	0	0
<u>Colletotrichum</u> leaf spot	0	0	1	0	0	0
Environmental stress	5	1	2	0	0	1
<u>Piggy-back plant (Tolmiea sp.)</u>						
Root problem	0	0	0	1	0	0
<u>Poinsettia (Euphorbia sp.)</u>						
Bacterial stem/root rot	0	1	0	0	0	0
<u>Botrytis</u> grey mold	0	0	1	1	1	1
Crown gall (<u>Erwinia</u>)	0	1	0	0	0	0
<u>Fusarium</u> stem rot/wilt	0	1	0	2	0	2
Nutritional	0	0	0	0	0	1
<u>Pythium</u> stem rot	0	1	0	0	0	0
<u>Rhizoctonia</u> root rot	1	2	2	0	0	0
Stem & root rot (*)	2	0	0	0	0	2
<u>Purple passion (Gynura sp.)</u>						
<u>Fusarium</u> root rot	1	0	0	0	0	0
<u>Rubber plant (Ficus sp.)</u>						
Anthracnose (<u>Glomerella</u>)	1	0	0	2	1	0
Environmental stress	4	0	1	1	0	2
Stem decay (*)	1	0	0	0	0	0
<u>Sansevieria (Sansevieria sp.)</u>						
<u>Gloeosporium</u> leaf spot	0	0	2	0	0	0
<u>Rhizoctonia</u> root rot	1	0	0	0	0	0
<u>Schefflera (Brassaia sp.)</u>						
Bacterial (*)	0	1	0	0	0	0
Environmental stress	27	23	18	4	0	2
Fungal leaf spot (*)	0	0	0	0	0	1
Root problem	0	1	0	0	0	0
<u>Spathiphyllum (Spathiphyllum sp.)</u>						
Bacterial stem rot (*)	0	0	0	0	0	1
Environmental stress	1	0	0	0	0	0
<u>Spider plant (Chlorophytum sp.)</u>						
Bacterial soft rot (*)	1	0	0	0	0	0
<u>Syngonium (Syngonium sp.)</u>						
Bacterial (*)	0	0	1	0	0	0
Environmental stress	0	1	0	0	0	0
<u>Wandering Jew (Tradescantia/Zebrina sp.)</u>						
<u>Botrytis</u> blight	0	0	0	1	0	0
Environmental stress	4	0	0	1	1	0
Virus disease (*)	0	1	0	0	0	0

Yucca (<u>Yucca</u> sp.)						
Fungal leaf spot (*)	0	0	0	0	1	0
Zebra plant (<u>Aphelandra</u> sp.)						
Anthracnose (*)	1	0	0	0	0	0
Powdery mildew (*)	1	0	0	0	0	0
Miscellaneous indoor plants						
Environmental stress	17	7	2	3	6	2

TURFGRASS

	76	77	78	79	80	81
Bentgrass (<u>Agrostis</u> sp.)						
Basidiomycete rhizomorphs (*)	0	0	0	0	0	1
Disease complex	0	1	0	0	0	0
Environmental stress	0	1	0	0	0	0
<u>Helminthosporium</u> leaf spot	0	0	0	1	0	0
<u>Sclerotinia</u> dollar spot	0	0	0	0	0	1
<u>Septoria</u> leaf spot	0	0	0	0	0	1
Bermuda grass (<u>Cynodon</u> sp.)						
<u>Fusarium</u> blight	0	0	0	1	0	0
<u>Helminthosporium</u> leaf spot	0	0	0	0	0	1
<u>Pythium</u> blight	1	0	0	0	0	0
<u>Rhizoctonia</u> brown patch	1	0	0	0	0	0
Smut (<u>Ustilago</u>)	0	0	0	1	0	0
Bluegrass (<u>Poa</u> sp.)						
Anthracnose (<u>Colletotrichum</u>)	0	0	0	1	0	0
<u>Ascochyta</u> leaf spot	1	0	0	0	0	0
<u>Corticium</u> red thread	3	0	1	0	2	2
Environmental stress	2	3	2	0	0	3
Fading out (<u>Curvularia</u>)	1	0	1	0	0	1
Fairy ring (*)	0	1	0	0	0	0
<u>Fusarium</u> blight	2	4	4	3	2	1
<u>Helminthosporium</u> leaf spot and Melting-out	0	1	3	4	2	1
Powdery mildew (<u>Erysiphe</u>)	3	1	0	0	0	1
<u>Pythium</u> blight	0	0	2	0	1	0
<u>Rhizoctonia</u> brown patch	3	10	4	2	0	3
Root problem	1	0	0	0	0	0
Rust (<u>Puccinia</u>)	1	0	0	0	0	0
<u>Sclerotinia</u> dollar spot	1	0	0	0	2	0
Slime mold (<u>Phyvarum</u>)	2	0	0	1	2	0
Stripe smut (<u>Ustilago</u>)	0	0	1	0	0	0
Fescue (<u>Festuca</u> sp.)						
Anthracnose (<u>Colletotrichum</u>)	0	2	0	5	0	0
Dollar spot (<u>Sclerotinia</u>)	0	0	0	0	0	1
Environmental stress	0	3	0	1	0	0
<u>Fusarium</u> blight	0	1	1	1	1	1
<u>Helminthosporium</u> leaf blight	0	0	2	0	1	0
<u>Pythium</u> blight	0	0	0	1	0	0
<u>Rhizoctonia</u> brown patch	0	0	1	2	0	3
<u>Septoria</u> leaf spot	0	0	0	0	0	10
Nimblewill (<u>Muhlenbergia</u> sp.)						
Anthracnose (<u>Colletotrichum</u>)	0	1	0	0	0	0

	76	77	78	79	80	81	21
Ryegrass (<i>Lolium</i> sp.)							
<u>Ascochyta</u> leaf spot	0	0	0	0	1	0	
<u>Helminthosporium</u> leaf spot	0	0	0	0	2	0	
<u>Rhizoctonia</u> brown patch	0	1	0	0	0	0	
Rust (<u>Puccinia</u>)	0	0	0	0	0	1	
Turfgrass (unidentified sp.)							
Anthracnose (<u>Colletotrichum</u>)	2	1	0	0	0	1	
<u>Cercospora</u> leaf spot	0	0	0	0	1	0	
<u>Corticium</u> red thread	0	0	1	0	0	1	
Environmental stress	3	1	0	2	2	3	
<u>Fusarium</u> blight	3	0	1	1	0	1	
<u>Helminthosporium</u>	1	1	0	2	0	0	
Powdery mildew (*)	0	0	0	2	0	1	
<u>Rhizoctonia</u> brown patch	0	1	1	3	1	2	
Root problem	0	0	0	0	0	1	
Rust (<u>Puccinia</u>)	0	0	0	0	0	1	
<u>Sclerotinia</u> dollar spot	1	0	1	0	0	1	
Slime mold (<u>Physarum</u>)	2	3	1	1	6	7	
Spring dead spot	1	0	0	0	0	0	
Zoysia grass							
Rust (<u>Puccinia</u>)	0	0	0	1	0	0	

WOODY ORNAMENTALS

	76	77	78	79	80	81
Arborvitae (<u>Thuja</u> sp.)						
Environmental stress	2	0	1	0	1	1
Natural senescence	0	1	9	0	0	0
Root problem	1	1	0	0	0	1
Tip and twig blights (<u>Coryneum</u> , <u>Diplodia</u> , <u>Fabrella</u> , <u>Pestalotia</u> & <u>Phomopsis</u>)	4	2	2	3	2	1
Ash (<u>Fraxinus</u> sp.)						
Anthracnose (<u>Gloeosporium</u>)	3	5	1	17	3	6
Cytospora canker	1	1	0	1	0	0
Environmental stress	2	9	0	0	0	0
Phyllosticta leaf spot	0	1	0	0	0	0
Root problem	1	1	0	0	0	0
Aucuba (<u>Aucuba</u> sp.)						
Anthracnose (<u>Gloeosporium</u>)	1	0	0	0	0	0
Azalea - See <u>Rhododendron</u>						
Barberry (<u>Berberis</u> sp.)						
Anthracnose (<u>Gloeosporium</u>)	0	0	1	1	0	0
Environmental stress	1	0	0	0	0	1
Verticillium wilt	1	1	0	0	1	0
Bayberry (<u>Myrica</u> sp.)						
<u>Septoria</u> leaf spot	0	0	0	1	0	0
Beech (<u>Fagus</u> sp.)						
Fungal canker (*)	0	0	1	0	0	0
Leaf scorch	1	0	0	0	0	0
Virus (*)	0	0	1	0	0	0
Birch (<u>Betula</u> sp.)						
Bleeding canker (<u>Phytophthora</u>)	0	1	0	0	0	0
Environmental stress	2	2	2	1	0	0
Fungal leaf spots (<u>Cylindrosporium</u> & <u>Gloeosporium</u>)	0	3	1	3	0	1
<u>Melanconium</u> dieback	0	0	2	0	1	0
Root problem	1	0	0	0	0	0
Sooty mold	0	0	0	0	1	0
Black locust (<u>Gleditsia</u> sp.)						
Environmental stress	0	1	0	1	0	0
<u>Phoma</u> canker	1	0	0	0	0	0
Wood decay (*)	0	0	1	0	0	0
Boxwood (<u>Buxus</u> sp.)						
Environmental stress	2	6	13	4	0	0
<u>Macrophoma</u> leaf spot	7	2	1	2	0	0
<u>Phoma</u> twig blight	4	0	0	0	0	0

	76	77	78	79	80	81
Boxwood (Cont.)						
<u>Phyllosticta</u> leaf spot	3	0	0	0	0	0
<u>Phytophthora</u> root rot	1	0	0	0	0	0
Root problem	1	0	0	0	0	3
Tip blight (*)	1	0	0	0	0	0
<u>Volutella</u> dieback	1	0	1	1	3	0
Buckeye (<u>Aesculus</u> sp.)						
Anthracnose (<u>Glomerella</u>)	0	0	1	0	0	0
<u>Guignardia</u> leaf blotch	0	1	0	0	0	0
Buckhorn (<u>Rhamus</u> sp.)						
Anthracnose (*)	1	0	0	0	0	0
Leaf scorch	0	0	0	1	0	0
Catalpa (<u>Catalpa</u> sp.)						
<u>Alternaria</u> leaf spot	0	1	0	1	1	0
Anthracnose (<u>Gloeosporium</u>)	0	1	0	0	0	0
<u>Botryosphaeria</u> canker	1	0	1	0	0	0
Fungal leaf spot (*)	0	0	0	0	0	1
Powdery mildew (*)	1	0	1	0	0	0
<u>Verticillium</u> wilt	0	1	0	0	0	1
Chestnut (<u>Castanea</u> sp.)						
Chestnut blight (<u>Endothia</u>)	0	0	0	0	1	1
Environmental stress	1	0	0	1	1	0
<u>Phyllosticta</u> leaf spot	0	1	0	0	0	0
Powdery mildew (*)	0	1	0	0	0	1
Wood decay (*)	0	0	0	0	1	1
Clematis (<u>Clematis</u> sp.)						
<u>Ascochyta</u> stem rot/leaf spot	0	0	0	1	0	0
<u>Glomerella</u> leaf spot	0	0	0	1	0	0
Cotoneaster (<u>Cotoneaster</u> sp.)						
Fireblight (<u>Erwinia</u>)	1	1	0	2	0	2
Crabapple (<u>Malus</u> sp.)						
Anthracnose (*)	0	0	1	0	0	0
Black rot & Frog-eye leaf spot (<u>Physalospora</u>)	1	1	1	0	0	0
Cedar-apple rust (<u>Gymnosporangium</u>)	0	1	0	0	0	0
Environmental stress	1	1	0	0	2	1
Fireblight (<u>Erwinia</u>)	0	3	1	1	1	2
Powdery mildew (<u>Podosphaera</u>)	2	0	0	0	0	0
Root problem	1	0	0	0	1	1
Scab (<u>Venturia</u>)	5	2	5	25	2	3
Deutzia (<u>Deutzia</u> sp.)						
<u>Phyllosticta</u> leaf spot	1	0	0	0	0	0
Dogwood (<u>Cornus</u> sp.)						
Bacterial leaf blight (*)	1	0	0	0	0	0
<u>Botryosphaeria</u> canker	1	1	0	9	0	1

	76	77	78	79	80	81
<u>Dogwood (Cont.)</u>						
<u>Botrytis</u> blight	0	0	4	2	0	0
Crown canker (<u>Phytophthora</u>)	0	0	2	0	0	0
Environmental stress	10	6	8	14	4	20
Fungal cankers (<u>Diaporthe</u> , <u>Fusarium</u> , & <u>Sphaeropsis</u>)	2	1	0	1	0	0
Fungal leaf spots (<u>Cercospora</u> , <u>Colletotrichum</u> , <u>Elsinoe</u> , <u>Phyllosticta</u> , <u>Septoria</u> and others)	2	1	8	2	0	1
Root problem	4	2	0	1	1	0
Wood decay (*)	1	0	0	0	0	0
<u>Douglas fir (Pseudotsuga)</u>						
<u>Sphaeropsis</u> canker	1	0	0	0	0	0
<u>Elm (Ulmus sp.)</u>						
Blackspot (<u>Gnomonia</u>)	1	0	0	1	0	1
Dutch elm disease (<u>Ceratocystis</u>)	10	15	8	17	3	0
Elm leaf blister (<u>Taphrina</u>)	1	0	0	0	0	0
Environmental stress	6	8	1	0	1	1
<u>Phoma</u> twig blight	1	0	0	0	0	0
Root problem	0	0	0	0	0	1
<u>Verticillium</u> wilt	0	0	1	0	0	0
Wetwood & slime flux	0	3	0	0	0	0
<u>English ivy (Hedera sp.)</u>						
Anthracnose (<u>Gloeosporium</u>)	3	0	1	0	2	0
Bacterial leaf spot & stem canker (<u>Xanthomonas</u>)	5	1	0	1	0	0
Environmental stress	4	0	1	0	1	0
Fungal leaf spots (<u>Americosporium</u> & <u>Phyllosticta</u>)	0	1	0	0	0	1
<u>Euonymus (Euonymus sp.)</u>						
Anthracnose (<u>Gloeosporium</u>)	1	0	1	0	2	0
Cankers (<u>Cytospora</u> & <u>Nectria</u>)	0	2	2	0	0	0
Crown gall (<u>Agrobacterium</u>)	3	2	3	3	0	1
Environmental stress	1	3	1	2	0	1
<u>Fusarium</u> stem/root rot	0	0	0	1	0	0
Powdery mildew (*)	6	2	0	1	2	1
<u>Fir (Abies sp.)</u>						
<u>Cytospora</u> canker	1	0	0	0	1	1
Environmental stress	0	0	0	0	1	2
<u>Forsythia (Forsythia sp.)</u>						
Anthracnose (<u>Gloeosporium</u>)	0	0	0	1	0	0
Crown gall (<u>Agrobacterium</u>)	1	1	3	1	2	2
Dodder (<u>Cuscuta</u>)	0	0	0	0	1	0
Environmental stress	2	0	0	1	2	0
Leaf scorch	0	1	0	0	1	0
<u>Phyllosticta</u> leaf spot	0	0	0	1	0	1
<u>Sclerotinia</u> twig blight	0	0	1	0	0	0

	76	77	78	79	80	81
<u>Ginkgo (Ginkgo sp.)</u>						
Environmental stress	1	0	0	0	0	0
<u>Phyllosticta leaf spot</u>	1	0	0	0	0	0
<u>Goldenraintree (Koeleria sp.)</u>						
<u>Nectria canker</u>	0	1	0	0	0	0
Transplant shock	0	0	0	1	0	0
<u>Goutweed (Aegopodium sp.)</u>						
Crown gall (<u>Agrobacterium</u>)	0	0	0	0	0	1
<u>Hackberry (Celtis sp.)</u>						
Heart rot (*)	1	0	1	0	0	0
Nutritional	0	1	0	0	0	0
Root rot (*)	1	0	0	2	0	0
<u>Hawthorn (Crataegus sp.)</u>						
Cedar-hawthorn rust (<u>Gymnosporangium</u>)	0	3	0	2	4	2
Environmental stress	0	1	0	0	0	10
Fireblight (<u>Erwinia</u>)	0	1	0	0	0	0
<u>Hemlock (Tsuga sp.)</u>						
Environmental stress	11	7	1	1	3	1
<u>Fabrella leaf spot</u>	0	1	0	0	0	0
Root problem	3	0	0	1	0	1
<u>Hickory (Carya sp.)</u>						
Environmental stress	1	0	0	0	0	0
<u>Gnomonia leaf blotch</u>	0	2	0	1	0	1
<u>Holly (Ilex sp.)</u>						
Anthracnose (<u>Elsinoe</u>)	0	1	1	1	0	0
Bacterial blight (<u>Corynebacterium</u>)	0	0	0	1	1	0
Black root rot (<u>Thielaviopsis</u>)	0	0	0	0	1	1
Crown gall (<u>Agrobacterium</u>)	0	0	1	0	0	0
Environmental stress	16	14	7	8	7	17
Fungal cankers (<u>Diaporthe, Diplodia,</u> <u>Fusicoccum, Phomopsis, & others</u>)	2	0	0	2	2	1
Fungal leaf spots (<u>Gloeosporium,</u> <u>Macrophoma, Phyllosticta, Septoria</u> & others)	6	2	1	1	0	2
<u>Fusarium dieback</u>	0	0	1	0	0	0
<u>Phytophthora root rot</u>	0	0	0	0	0	1
<u>Rhizoctonia crown rot</u>	1	0	1	0	0	0
Root problem	4	1	0	0	2	3
Spine spot	0	1	0	3	0	0
<u>Verticillium isolated</u>	0	0	0	0	1	0
<u>Hollyhock (Althaea sp.)</u>						
Hollyhock rust (<u>Puccinia</u>)	0	0	0	1	0	1

	76	77	78	79	80	81
<u>Honeysuckle (Lonicera sp.)</u>						
Environmental stress	0	1	1	2	1	0
Fungal stem canker (*)	1	0	0	0	0	0
<u>Herpobasidium</u> leaf blight	0	0	0	1	0	0
<u>Phoma</u> twig blight	5	0	1	2	0	0
<u>Verticillium</u> wilt	1	0	0	0	1	0
<u>Hornbeam (Carpinus sp.)</u>						
<u>Glomerella (Gloeosporium)</u> leaf spot	0	1	1	0	0	0
Leaf scorch	0	1	0	0	0	0
<u>Nectria</u> canker	1	0	0	0	0	0
Transplant shock	0	0	1	0	0	0
<u>Hydrangea (Hydrangea sp.)</u>						
<u>Ascochyta</u> leaf spot	0	0	1	0	0	0
Environmental stress	0	2	0	0	0	0
Ringspot virus	0	0	0	0	1	0
<u>Japanese pagodatree (Saphora sp.)</u>						
<u>Cytospora</u> canker	0	0	1	0	0	0
<u>Juniper & Red cedar (Juniperus sp.)</u>						
Cedar-apple rust (<u>Gymnosporangium</u>)	4	0	3	3	2	5
Environmental stress	0	0	1	0	2	1
<u>Fomes</u> trunk/root rot	0	0	0	0	0	1
Root problem	0	0	0	0	4	2
Twig blights (<u>Kabatina</u> , <u>Pestalotia</u> , <u>Phomopsis</u>)	2	5	5	6	6	6
<u>Laurel (Laurus sp.)</u>						
<u>Cercospora</u> leaf spot	1	0	0	0	0	0
<u>Diaporthe</u> blight	2	0	0	0	0	0
<u>Rhizoctonia</u> root rot	1	0	0	0	0	0
Virus (*)	1	0	0	0	0	0
<u>Leucothoe (Leucothoe sp.)</u>						
<u>Botryosphaeria</u> canker	0	1	0	0	0	0
<u>Phyllosticta</u> leaf spot	0	1	0	0	0	0
Powdery mildew (<u>Microsphaera</u>)	0	1	0	0	0	0
<u>Lilac (Syringa sp.)</u>						
Bacterial blight (<u>Pseudomonas</u>)	1	0	0	0	0	0
Environmental stress	1	1	0	1	0	2
Fungal leaf spots & blights (<u>Gloeosporium</u> & <u>Phyllosticta</u>)	2	4	4	3	0	0
<u>Phytophthora</u> dieback	1	0	0	0	0	0
Powdery mildew (<u>Microsphaera</u>)	0	0	0	3	0	0
Root problem	0	0	0	1	1	0
<u>Linden (Tilia sp.)</u>						
Anthracoise (<u>Gnomonia</u>)	1	0	0	0	1	0
Environmental stress	1	0	0	0	1	1
<u>Verticillium</u> wilt	0	1	0	0	0	0
Wood decay (*)	0	0	1	0	0	0

	76	77	78	79	80	81
<u>Magnolia (Magnolia sp.)</u>						
Environmental stress	17	6	0	5	9	7
Fungal cankers (<u>Botryosphaeria</u> , <u>Cytospora</u> , <u>Nectria</u> , <u>Phomopsis</u> & others)	1	2	1	0	0	1
Normal leaf drop	7	0	0	0	0	0
Powdery mildew (*)	0	0	0	0	0	1
Root problem	3	0	0	1	0	0
<u>Mahonia (Mahonia sp.)</u>						
<u>Phyllosticta</u> leaf spot	0	0	0	0	1	0
<u>Maple & Boxelder (Acer sp.)</u>						
Anthracnose (<u>Gloeosporium</u>)	28	55	41	35	33	23
Bleeding canker (<u>Phytophthora</u>)	0	0	0	0	1	0
Bullseye spot (<u>Cristulariella</u>)	3	3	3	4	1	1
Environmental stress	28	12	3	14	14	20
Fungal cankers (<u>Cytospora</u> , <u>Nectria</u> & <u>Phoma</u>)	3	0	1	0	0	0
Fungal leaf spots (<u>Cercospora</u> , <u>Septoria</u> and others)	0	0	0	0	1	4
Girdling roots	2	1	0	0	4	2
Leaf blister (<u>Taphrina</u>)	47	1	0	0	0	1
Leaf scorch	22	53	12	16	32	14
Nutritional	9	4	3	4	1	6
<u>Phyllosticta</u> leaf spot	2	3	3	5	1	2
Powdery mildew (*)	0	1	0	1	4	0
Root problem	4	6	0	3	2	4
Sooty mold	1	0	0	0	0	1
Tarspot (<u>Rhytisma</u>)	0	2	1	0	0	1
<u>Verticillium</u> wilt	24	26	6	17	15	6
Wetwood/Slime flux	0	0	0	0	2	1
Wood decay (*)	0	0	0	0	1	1
<u>Mimosa (Albizzia sp.)</u>						
<u>Canoderma</u> root rot	0	0	0	0	1	0
<u>Phomopsis</u> twig blight	0	0	0	2	0	0
<u>Verticillium</u> wilt	0	0	0	1	0	0
<u>Mountain ash (Sorbus sp.)</u>						
<u>Cytospora</u> canker	0	0	1	0	0	0
Fireblight (<u>Erwinia</u>)	0	1	0	0	0	0
Scab (<u>Venturia</u>)	0	0	0	0	0	1
<u>Septoria</u> leaf spot	0	0	1	0	0	0
<u>Mulberry (Morus sp.)</u>						
<u>Cytospora</u> canker	0	0	0	1	0	0
Environmental stress	1	0	0	0	2	0
Popcorn disease (<u>Ciboria</u>)	1	0	0	0	1	1
Witch's broom (*)	0	0	0	0	0	1

	76	77	78	79	80	81
Myrtle (Myrtus sp.)						
Powdery mildew (*)	1	0	0	0	0	0
Rhizoctonia root rot	1	0	0	0	0	0
Root problem	1	0	0	0	0	0
Sooty mold	1	0	0	0	0	2
Oak (Quercus sp.)						
Actinopelte leaf spot	4	0	11	4	2	1
Anthracnose (Gnomonia)	2	5	2	8	2	4
Butt rot/Wood decay (*)	0	2	0	1	0	0
Chestnut blight (Endothia)	0	0	0	1	0	0
Environmental stress	4	2	3	4	2	2
Fungal leaf spots (Phyllosticta & Septoria)	0	1	2	1	1	0
Leaf scorch/burn	4	9	1	5	5	4
Nectria canker	0	0	0	0	0	1
Nematodes (Hoplolaimus)	1	0	0	0	0	0
Nutritional (general)	2	2	3	2	1	1
Nutritional (Iron chlorosis)	8	14	4	3	1	5
Oak leaf blister (Taphrina)	3	0	1	0	0	0
Oak wilt (Ceratocystis)	6	1	2	0	0	1
Physalospora twig blight	0	1	0	0	0	0
Powdery mildew (*)	0	1	0	0	0	0
Root problem	2	1	0	1	2	0
Sooty mold	1	0	0	0	0	0
Wetwood/Slime flux	0	0	0	1	0	0
Photinia (Photinia sp.)						
Alternaria leaf spot	0	0	0	0	1	0
Entomosporium leaf spot	1	0	0	1	0	0
Pine (Pinus sp.)						
Cylindrocladium root rot	0	0	0	1	0	0
Cytospora canker	3	0	1	0	0	0
Diplodia twig blight	8	3	2	7	22	10
Eastern gall rust (Cronartium)	0	0	0	0	0	1
Environmental stress	7	9	3	8	12	12
Needle casts & blights (Dothistroma Hypoderma, Septoria & others)	4	0	4	3	1	0
Normal needle drop	4	0	0	2	0	3
Pine needle rust (Coleosporium)	8	0	0	1	4	1
Pinewood nematode (Bursaphelenchus)	0	0	0	5	14	10
Root problem	7	1	1	2	6	6
Sooty mold	1	4	3	4	10	2
Sphaeropsis canker	1	0	0	0	0	0
Tipburn	0	0	0	1	2	1
Verticicladiella root decline	0	0	0	0	0	1
Poplar & Cottonwood (Populus sp.)						
Anthracnose (Colletotrichum)	0	1	1	0	0	0
Environmental stress	4	1	0	2	1	1
Fungal cankers (Cryptodiaporthe, Fusarium & Sphaeropsis)	3	1	0	2	0	0
Gloeosporium leaf spot	1	1	0	1	0	0

	76	77	78	79	80	81
Poplar & Cottonwood (Cont.)						
Leaf rust (<u>Melampsora</u>)	0	0	0	1	0	1
Sooty mold	1	0	0	0	0	0
Potentilla (<u>Potentilla</u> sp.)						
<u>Sphaeropsis</u> canker	0	0	0	1	0	0
Privet (<u>Ligustrum</u> sp.)						
Environmental stress	5	1	0	0	2	2
Root problem	4	0	0	0	0	1
Pyracantha (<u>Pyracantha</u> sp.)						
Environmental stress	0	0	0	0	0	1
Fireblight (<u>Erwinia</u>)	1	1	1	0	0	1
Pyracantha scab (<u>Venturia</u>)	2	1	1	1	1	3
Sooty mold	1	0	0	0	0	0
Raintree (<u>Samanea</u> sp.)						
Leaf scorch	0	1	0	0	0	0
Nutritional	1	0	0	0	0	0
Redbud (<u>Cercis</u> sp.)						
Anthracnose (*)	0	0	0	0	2	0
<u>Botryosphaeria</u> canker	2	1	1	0	0	0
Environmental stress	4	5	0	0	1	0
<u>Phyllosticta</u> leaf spot	0	0	1	0	0	0
Root problem	1	0	0	0	0	1
<u>Verticillium</u> wilt	1	0	0	3	2	0
Wood decay (*)	0	0	1	0	0	0
Rhododendron & Azalea (<u>Rhododendron</u> sp.)						
Azalea gall (<u>Exobasidium</u>)	1	1	2	9	2	4
Bacterial (*)	0	0	0	0	1	0
<u>Botryosphaeria</u> canker	2	1	1	1	0	1
<u>Cylindrocarpon</u> wilt	1	0	0	0	0	0
Environmental stress	16	10	8	13	10	8
<hr/>						
Fungal leaf spots (<u>Cercospora</u> , <u>Gloeosporium</u> & <u>Septoria</u>)	3	0	0	3	1	1
Leaf scorch	1	0	0	0	3	7
Natural senescence	2	0	0	0	0	0
<u>Pestalotia</u> gray blight	15	1	7	1	3	2
<hr/>						
<u>Phytophthora</u> crown rot	5	9	2	2	3	0
<u>Phytophthora</u> dieback	3	1	0	1	0	0
Powdery mildew (<u>Microsphaera</u>)	0	0	0	1	0	1
Root problem	6	0	0	2	1	5
Slime mold	0	1	0	0	0	0
Twig blight (*)	0	0	0	0	1	0
Rose (<u>Rosa</u> sp.)						
Anthracnose (<u>Cryptosporella</u>)	0	1	1	0	0	1
Black spot (<u>Diplocarpon</u>)	6	2	0	0	0	2
<u>Botrytis</u> blight	0	0	1	0	0	0
<u>Cercospora</u> leaf spot	0	1	0	0	0	0
<u>Coniothyrium</u> canker	3	0	0	0	0	1

	76	77	78	79	80	81
Rose (Cont.)						
Environmental stress	1	1	1	3	0	0
Fungal stem canker (*)	4	3	0	1	3	0
Powdery mildew (<u>Sphaerotheca</u>)	3	1	0	0	1	1
Root problem	1	0	0	0	2	1
Rose mosaic virus	0	1	0	1	3	2
Rust (<u>Phragmidium</u>)	1	0	0	0	0	0
Russian Olive (<u>Elaeagnus</u> sp.)						
Crown gall (<u>Agrobacterium</u>)	0	0	2	0	0	0
Environmental stress	1	1	0	0	0	0
Fungal canker (*)	0	0	0	1	0	0
<u>Fusicoccum</u> dieback	0	0	0	0	1	0
Powdery mildew (*)	0	0	0	1	0	0
<u>Septoria</u> leaf spot	0	0	1	0	1	0
<u>Verticillium</u> wilt	0	0	0	2	0	0
Sassafrass (<u>Sassafrass</u> sp.)						
Anthracoise (*)	1	0	0	0	0	0
Environmental stress	1	0	0	0	0	0
Smoketree (<u>Cotinus</u> sp.)						
<u>Verticillium</u> wilt	1	0	0	0	0	0
Sourwood (<u>Oxydendrum</u> sp.)						
Anthracoise (*)	0	0	0	0	1	0
Spiraea (<u>Spiraea</u> sp.)						
Fireblight (<u>Erwinia</u>)	0	1	0	0	0	0
Spruce (<u>Picea</u> sp.)						
Environmental stress	6	2	1	2	1	3
Fomes butt rot	1	0	0	0	0	0
Fungal cankers (<u>Ascochyta</u> , <u>Cytospora</u> , <u>Phoma</u>)	1	1	2	2	3	3
Needle blights (<u>Betrydiplodia</u> & <u>Pestalotia</u>)	1	0	0	1	0	0
<u>Rhizosphaera</u> needle cast	1	1	0	0	0	0
Root problem	5	0	0	0	0	2
Wood decay (*)	0	0	0	0	1	0
Sweetgum & redgum (<u>Liquidambar</u> sp.)						
Anthracoise (<u>Gloeosporium</u>)	1	0	0	0	0	0
Bleeding canker (<u>Botryosphaeria</u>)	0	1	0	0	2	0
Environmental stress	1	1	1	0	1	2
Root problem	1	1	0	0	0	0
Sycamore (<u>Platanus</u> sp.)						
Anthracoise (<u>Gnomonia</u>)	3	1	5	2	0	11
<u>Cercospora</u> leaf spot	0	0	1	0	0	0
Environmental stress	2	0	0	0	1	1
Powdery mildew (*)	1	0	0	0	0	0

	76	77	78	79	80	81
<u>Taxus (Taxus sp.)</u>						
Environmental stress	13	7	3	1	4	12
<u>Pythium root rot</u>	3	0	0	0	0	0
<u>Twig blights (Pestalotia, Phyllosticta & Sphaeropsis)</u>	7	0	0	4	0	1
<u>Verticillium isolated</u>	0	1	0	0	0	0
<u>Wood decay (*)</u>	1	0	0	0	0	0
<u>Tulip tree (Liriodendron sp.)</u>						
<u>Black leaf spot (Rhytisma)</u>	0	1	0	0	0	0
<u>Botryosphaeria canker</u>	0	1	0	0	0	0
<u>Environmental stress</u>	14	8	2	6	0	0
<u>Fungal leaf spots (Gloeosporium, Phyllosticta & others)</u>	1	0	1	0	1	0
<u>Phomopsis twig blight</u>	0	0	0	1	0	0
<u>Powdery mildew (*)</u>	0	0	0	5	0	2
<u>Sooty mold</u>	0	2	0	0	0	0
<u>Verticillium wilt</u>	1	1	0	0	2	4
<u>Tupelo & Blackgum (Nyssa sp.)</u>						
<u>Environmental stress</u>	0	1	0	1	0	0
<u>Mycosphaerella leaf spot</u>	0	0	0	1	0	0
<u>Viburnum (Viburnum sp.)</u>						
<u>Botrytis shoot blight</u>	0	1	1	0	0	0
<u>Environmental stress</u>	1	0	0	0	2	1
<u>Phyllosticta leaf spot</u>	0	0	1	0	0	0
<u>Powdery mildew (*)</u>	0	0	0	0	0	1
<u>Root problem</u>	1	0	0	0	0	0
<u>Sooty mold</u>	0	0	0	0	0	1
<u>Verticillium wilt</u>	0	0	0	0	0	1
<u>Walnut (Juglans sp.)</u>						
<u>Alternaria nut mold</u>	0	1	0	0	0	0
<u>Environmental stress</u>	2	0	0	0	1	0
<u>Fungal leaf spots (Gnomonia & Marasmius)</u>	1	1	0	2	2	0
<u>Heart rot (*)</u>	0	1	0	0	0	0
<u>Wetwood/Slime flux</u>	1	0	0	0	0	0
<u>Willow (Salix sp.)</u>						
<u>Crown gall (Agrobacterium)</u>	0	1	0	4	0	0
<u>Cylindrosporium leaf spot</u>	0	0	0	1	0	0
<u>Environmental stress</u>	1	1	0	0	0	2
<u>Fungal cankers (Botryosphaeria, Macrophoma, Physalospora & others)</u>	0	1	2	2	1	1
<u>Powdery mildew (*)</u>	0	0	0	2	0	0
<u>Root problem</u>	0	0	0	0	2	0
<u>Sooty mold</u>	0	0	0	0	2	0
<u>Venturia leaf blight</u>	1	0	1	0	0	0
<u>Wisteria (Wisteria sp.)</u>						
<u>Fungal leaf spot (*)</u>	0	0	0	0	0	1

	76	77	78	79	80	81
Zelkova (<u>Zelkova</u> sp.)						
Anthracnose (*)	0	0	1	0	0	0
Environmental stress	0	0	0	0	0	2
Miscellaneous Ornamentals						
Environmental stress	3	2	1	3	0	2

VEGETABLES

	76	77	78	79	80	81
Asparagus (<u>Asparagus</u> sp.)						
<u>Cercospora</u> blight	0	0	0	0	0	1
<u>Fusarium</u> wilt	5	0	0	2	0	0
Bean (<u>Phaseolus</u> sp.)						
<u>Alternaria</u> leaf & pod spot	1	0	0	0	0	0
Anthracnose (<u>Colletotrichum</u>)	2	1	6	5	0	1
Bacterial blight (<u>Xanthomonas</u>)	8	0	0	1	0	4
Bacterial soft rot (<u>Erwinia</u>)	1	0	0	0	0	0
Bacterial wilt (<u>Corynebacterium</u>)	0	0	0	1	0	0
Bean rust (<u>Uromyces</u>)	2	0	0	1	0	5
Bean yellow mosaic virus	70	28	16	41	27	15
Cyst nematode (<u>Heterodera</u>)	1	0	0	4	0	0
Damping-off	0	3	0	2	0	0
Environmental stress	6	1	9	4	1	0
Fungal root rot (*)	1	3	3	1	2	2
<u>Fusarium</u> root rot	1	3	3	1	2	5
Leaf scorch	0	4	0	0	2	1
Nutritional	5	4	3	1	1	2
<u>Phyllosticta</u> leaf spot	1	0	1	0	0	0
<u>Pythium</u> root rot	12	4	1	2	1	1
<u>Pythium</u> stem rot	0	0	0	0	0	3
<u>Rhizoctonia</u> root rot	17	8	9	5	19	8
Root knot nematode (<u>Meloidogyne</u>)	2	0	0	0	2	0
Slime mold	0	1	0	0	1	0
Southern blight (<u>Sclerotium</u>)	0	1	0	0	0	1
White mold (<u>Sclerotinia</u>)	0	0	0	0	0	1
Beet (<u>Beta</u> sp.)						
Dodder (<u>Cuscuta</u>)	0	1	1	0	0	0
Root knot nematode (<u>Meloidogyne</u>)	0	0	1	0	1	0
Carrot (<u>Daucus</u> sp.)						
<u>Alternaria</u> blight	0	0	0	1	0	0
Growth crack	0	0	0	0	1	0
Root knot nematode (<u>Meloidogyne</u>)	0	0	0	0	1	0
Cowpea (<u>Vigna</u> sp.)						
<u>Pythium</u> root rot	1	0	0	0	0	0
Crucifers (Brassica - Broccoli, Brussel Sprouts, Cabbage, Cauliflower, Collards, Kale, Mustard, Turnip)						
<u>Alternaria</u> leaf spot	2	1	1	0	1	1
Anthracnose (<u>Colletotrichum</u>)	0	0	1	0	0	0
Bacterial soft rot (*)	0	0	1	0	0	3
Black leg (<u>Phoma</u>)	0	2	0	1	0	0
Black rot (<u>Xanthomonas</u>)	0	3	4	4	1	6
<u>Cercospora/Cercosporella</u> leaf spot	0	0	0	0	2	3
Crown gall (<u>Agrobacterium</u>)	0	0	1	0	1	0
Damping-off	1	2	0	1	2	1
Downy mildew (<u>Peronospora</u>)	0	0	0	0	0	1

	76	77	78	79	80	81
Crucifers (Cont.)						
Environmental stress	2	1	0	0	5	4
<u>Fusarium</u> yellows	2	0	1	0	6	2
<u>Rhizoctonia</u> root rot/wire stem	2	1	2	0	8	3
Root problem	0	0	0	0	1	2
<u>Sclerotinia</u> stem rot	1	0	0	0	0	0
Tipburn	1	0	0	0	0	0
<u>Verticillium</u> wilt	1	1	0	0	0	0
White rust (<u>Albugo</u> -mustard)	0	0	0	1	1	0
Cucurbits (<u>Citrulus</u>, <u>Cucumis</u>, <u>Cucurbita</u>)						
<u>Alternaria</u> leaf spot	0	0	0	0	1	1
Anthracnose (<u>Colletotrichum</u>)	11	2	2	0	0	0
Bacterial soft rot (*)	1	0	0	1	0	0
Bacterial wilt (<u>Erwinia</u>)	15	7	13	10	0	10
<u>Cercospora</u> leaf spot	0	1	0	1	0	0
<u>Choanephora</u> fruit rot	0	0	1	0	0	0
Cucumber mosaic virus	1	0	0	0	0	0
Environmental stress	0	0	0	0	2	1
<u>Fusarium</u> root rot	0	0	0	0	1	0
Gummy stem blight (<u>Mycosphaerella</u>)	3	2	0	0	0	0
Powdery mildew (*)	2	1	0	1	0	0
<u>Pythium</u> root rot/damping-off	1	0	0	0	0	1
<u>Rhizoctonia</u> belly rot	0	0	0	0	1	0
Root problem	0	0	0	0	0	2
<u>Sclerotinia</u> cottony soft rot	0	0	0	0	1	1
Slime mold	0	0	0	0	1	0
Eggplant (<u>Solanum</u> sp.)						
Walnut wilt	0	0	0	0	0	1
Lettuce (<u>Lactuca</u> sp.)						
Bottom rot (<u>Pellicularia</u> / <u>Rhizoctonia</u>)	1	0	0	0	0	1
Damping-off	0	0	0	0	0	1
Nutritional	1	1	0	0	0	1
Lima bean (<u>Phaseolus</u> sp.)						
Bacterial blight (<u>Xanthomonas</u>)	1	1	0	0	0	0
Environmental stress	0	2	0	0	0	0
Peanut stunt virus	1	0	0	0	0	0
Root knot nematode (<u>Meloidogyne</u>)	1	0	0	0	0	0
Yeast spot (<u>Nematospora</u>)	0	0	1	0	0	1
Okra (<u>Hibiscus</u> sp.)						
Charcoal rot (<u>Macrophomina</u>)	1	0	0	0	0	0
<u>Choanephora</u> fruit rot	1	1	0	0	0	0
Leaf scorch	0	0	0	0	0	1
<u>Rhizoctonia</u> root rot	0	0	0	0	1	0
Root knot nematode (<u>Meloidogyne</u>)	0	0	0	0	1	0
Vascular wilt (*)	0	0	0	0	0	1

	76	77	78	79	80	81
<u>Onion (Allium sp.)</u>						
<u>Botrytis</u> blight	1	0	1	0	0	1
Environmental stress	0	0	0	0	0	1
<u>Fusarium</u> root rot	1	1	0	0	0	0
<u>Parsnip (Pastinaca sp.)</u>						
Root knot nematode (<u>Meloidogyne</u>)	0	0	1	0	0	0
<u>Pea (Pisum sp.)</u>						
<u>Anthraco</u> nose (<u>Colletotrichum</u>)	1	0	0	0	0	0
<u>Ascochyta</u> blight	0	1	0	0	0	0
Bacterial blight (<u>Pseudomonas</u>)	0	1	0	0	0	1
Bean yellow and cowpea mosaic viruses	2	0	0	0	0	1
Damping-off	0	0	0	1	0	0
Fungal root rots (<u>Fusarium</u> , <u>Pythium</u> , & <u>Rhizoctonia</u>)	4	1	0	0	0	1
<u>Fusarium</u> wilt	0	0	0	0	0	1
Powdery mildew (<u>Erysiphe</u>)	0	0	0	1	0	0
Root problem	0	1	0	1	0	2
Southern stem blight (<u>Sclerotium</u>)	0	0	1	0	0	0
<u>Pepper (Capsicum sp.)</u>						
<u>Alternaria</u> fruit rot	1	1	2	0	0	1
<u>Anthraco</u> nose (<u>Gloeosporium</u>)	0	1	0	2	0	1
Bacterial leaf spot (<u>Xanthomonas</u>)	6	4	6	7	5	4
Environmental stress (including blossom end rot)	4	7	1	1	9	4
<u>Fusarium</u> root rot	1	2	1	1	1	0
Genetic problem	0	0	0	0	1	0
<u>Phoma</u> blight	1	0	0	0	0	0
<u>Pythium</u> stem rot	1	0	0	0	0	1
<u>Phytophthora</u> blight	0	0	0	0	0	1
<u>Rhizoctonia</u> root/stem rot	0	1	1	0	0	1
Root problem	1	1	0	0	0	1
Southern blight (<u>Sclerotium</u>)	0	1	2	0	1	4
Tobacco mosaic virus	1	0	0	0	0	0
<u>Potato (Solanum sp.)</u>						
Bacterial soft rot (<u>Erwinia</u>)	0	0	1	0	0	1
Black dot stem rot (<u>Colletotrichum</u>)	2	2	0	0	0	0
Black leg (<u>Erwinia</u>)	12	3	3	1	0	8
Early blight (<u>Alternaria</u>)	7	1	1	1	0	0
Environmental stress	3	1	0	3	1	4
<u>Fusarium</u> tuber rot	1	2	1	0	2	2
Late blight (<u>Phytophthora</u>)	4	1	2	1	0	0
Nutsedge damage	0	0	0	0	1	1
<u>Phoma</u> pocket rot	0	1	0	0	0	0
Potato virus (*)	1	0	0	0	0	1
<u>Rhizoctonia</u>	0	0	2	0	0	0
Ring rot (<u>Corynebacterium</u>)	0	0	1	0	0	0
Root knot nematode (<u>Meloidogyne</u>)	0	0	0	0	1	3
Scab (<u>Streptomyces</u>)	1	0	2	4	0	0
<u>Septoria</u> leaf spot	1	0	0	0	0	0
Tuber rot (*)	0	0	0	0	0	1

	76	77	78	79	80	81
Radish (<u>Raphanus</u> sp.)						
Black root (<u>Aphanomyces</u>)	1	1	2	0	1	0
Nutritional	0	0	0	0	0	1
Rhubarb (<u>Rheum</u> sp.)						
Anthracnose (<u>Colletotrichum</u>)	0	0	1	0	0	0
Crown rots (<u>Phytophthora</u> & <u>Pythium</u>)	9	4	9	9	1	2
Environmental stress	0	0	0	0	0	1
Fungal leaf spots (<u>Ascochyta</u> , <u>Phyllosticta</u> & others)	2	1	0	0	1	1
Root problem	0	0	0	0	0	1
Sweet potato (<u>Ipomoea</u> sp.)						
Black rot (<u>Ceratocystis</u>)	0	1	0	0	0	1
Environmental stress	1	0	0	0	0	2
Fusarium surface rot	0	0	0	1	0	1
Scurf (<u>Monilochaetes</u>)	4	1	3	3	1	5
Tomato (<u>Lycopersicon</u> sp.)						
<u>Alternaria</u> fruit rot	1	0	0	0	2	0
Anthracnose (<u>Colletotrichum</u>)	3	1	0	0	0	0
Bacterial canker (<u>Corynebacterium</u>)	2	0	2	1	0	3
Bacterial leaf spot (<u>Xanthomonas</u>)	2	0	2	1	0	3
Bacterial ring spot (<u>Erwinia</u>)	0	0	1	2	0	0
Bacterial stem rot (*)	0	0	0	0	0	1
Bacterial wilt (<u>Pseudomonas</u>)	2	3	2	2	1	0
Blossom end rot	1	3	7	3	1	1
Botrytis stem rot	0	0	3	0	0	0
Buckeye rot (<u>Phytophthora</u>)	0	1	1	4	5	2
Catfacing	3	0	1	1	1	1
Cladosporium leaf mold	0	1	1	0	4	0
Cucumber mosaic virus	1	0	0	0	1	0
Early blight (<u>Alternaria</u>)	7	7	11	4	3	8
Environmental stress	5	7	1	2	4	6
Fruit rot (*)	0	0	0	0	1	0
Fusarium wilt	4	5	11	4	11	2
Girdled stem (*)	1	0	0	0	0	0
Gray wall	1	1	1	0	0	0
Late blight (<u>Phytophthora</u>)	4	0	1	2	0	0
Nutritional	7	7	2	4	3	6
Physiological leaf curl	5	7	0	2	1	2
Pythium stem rot	1	0	0	0	0	0
Rhizoctonia root rot	0	1	1	0	3	1
Root knot nematode (<u>Meloidogyne</u>)	0	0	1	0	4	0
Root problem	0	1	0	2	0	0
Sclerotinia stem rot	1	0	1	0	2	1
Septoria leaf spot	10	10	8	20	8	7
Slime mold	0	0	0	0	0	1
Sooty mold	0	1	1	0	0	0
Southern blight (<u>Sclerotium</u>)	1	2	3	0	1	0
Stem rot (*)	0	0	0	0	1	0
Tobacco mosaic virus	1	3	2	2	4	3
Tomato spotted wilt	1	0	2	0	0	0
Vascular wilt (*)	1	0	0	3	0	2

	76	77	78	79	80	81
Tomato (Cont.)						
Verticillium wilt	1	0	0	1	1	0
Virus problem (*)	0	0	1	0	0	0
Walnut wilt	2	6	3	3	3	3

MISCELLANEOUS

	76	77	78	79	80	81
Fungal Identifications						
Lichen	1	0	1	4	2	0
Molds & mushrooms	2	8	4	9	9	11
Slime mold (except turf)	1	2	5	0	4	1
Plant Identifications						
Various	0	5	0	12	1	11
Referrals ¹						
Agronomy	-	-	-	-	2	13
Animal Diagnostic Lab	-	-	-	-	3	3
Entomology	-	-	-	-	30	10
Horticulture	-	-	-	-	3	4
Regulatory Services	-	-	-	-	1	4
Weed Science	-	-	-	-	16	11
Soil						
Inadequate Specimen	0	1	0	0	5	1
Nematodes (general)	1	6	0	2	8	2
No Diagnosis	0	2	1	1	40	29
pH/Soluable Salts Test	0	0	0	2	0	0
Weeds						
Disease Diagnosis (Various)	0	0	1	1	0	1
Wood Foundation	1	0	0	1	1	1

¹ Samples referred and handled directly by another department. The Clinic did not receive a copy of the diagnosis. This information is available for 1980 and 1981 only.

Acknowledgment

We wish to thank Jennie Courts for typing, duplicating and distributing this publication.

SUMMARY OF PROBLEM CATEGORIES

ABIOTIC PROBLEMS

	<u>76</u>	<u>77</u>	<u>78</u>	<u>79</u>	<u>80</u>	<u>81</u>
AGRONOMIC	88	56	33	76	68	97
HERBS	0	0	0	0	0	0
HERBACEOUS ORNAMENTALS	6	7	0	2	4	2
INDOOR PLANTS	80	54	27	16	15	21
SMALL FRUITS	34	43	16	51	46	65
TOBACCO	393	223	139	230	423	484
TREE FRUITS	41	37	21	53	42	36
TURF GRASS	27	35	16	22	19	40
WOODY ORNAMENTALS	310	234	113	187	210	191
VEGETABLES	49	38	28	26	36	41
TOTAL	1028	727	393	663	863	971

BIOTIC DISEASES

AGRONOMIC	265	303	196	416	324	478
HERBS	4	2	7	7	4	9
HERBACEOUS ORNAMENTALS	29	24	14	23	22	17
INDOOR PLANTS	36	22	32	18	19	17
SMALL FRUITS	48	46	43	56	43	39
TOBACCO	336	216	189	287	1052	739
TREE FRUITS	88	112	77	151	130	123
TURF GRASS	28	24	22	31	21	30
WOODY ORNAMENTALS	368	247	197	256	165	197
VEGETABLES	403	304	256	263	294	291
TOTAL	1605	1300	1033	1508	2074	1946

CHEMICAL INJURY

	<u>76</u>	<u>77</u>	<u>78</u>	<u>79</u>	<u>80</u>	<u>81</u>
AGRONOMIC	15	12	4	3	10	14
HERBS	1	0	0	0	0	0
HERBACEOUS ORNAMENTALS	1	2	2	1	7	0
INDOOR PLANTS	6	6	1	0	0	1
SMALL FRUITS	1	7	2	6	6	0
TOBACCO	128	105	82	60	78	112
TREE FRUITS	4	2	6	5	4	3
TURF GRASS	1	0	0	0	0	1
WOODY ORNAMENTALS	57	22	19	15	38	17
VEGETABLES	36	31	16	8	29	23
TOTAL	250	187	132	98	172	171

INADEQUATE SPECIMENS

AGRONOMIC	106	78	25	54	39	26
HERBS	1	0	0	0	0	1
HERBACEOUS ORNAMENTALS	2	5	0	4	5	6
INDOOR PLANTS	8	10	3	13	10	3
SMALL FRUITS	5	13	5	10	4	9
TOBACCO	99	89	0	47	99	104
TREE FRUITS	8	17	10	24	19	24
TURF GRASS	7	12	2	7	8	14
WOODY ORNAMENTALS	123	153	39	85	57	47
VEGETABLES	33	55	21	50	46	49
TOTAL	392	432	105	294	287	283

<u>INSECT INJURY</u>	76	77	78	79	80	81
AGRONOMIC	25	12	7	7	17	31
HERBS	1	1	2	1	2	0
HERBACEOUS ORNAMENTALS	4	5	3	0	7	1
INDOOR PLANTS	23	12	7	15	6	5
SMALL FRUITS	6	2	2	3	8	15
TOBACCO	22	17	5	6	18	24
TREE FRUITS	31	23	23	15	51	38
TURF GRASS	3	0	0	1	0	1
WOODY ORNAMENTALS	184	115	74	103	179	132
VEGETABLES	28	17	6	4	19	9
TOTAL	327	204	129	155	307	256

<u>NO DISEASE</u>						
AGRONOMIC	95	70	119	117	88	71
HERBS	1	2	0	0	4	1
HERBACEOUS ORNAMENTALS	8	9	8	5	16	5
INDOOR PLANTS	22	21	30	28	46	18
SMALL FRUITS	6	9	10	19	19	16
TOBACCO	35	56	116	77	215	134
TREE FRUITS	13	22	47	38	72	42
TURF GRASS	9	10	9	9	6	7
WOODY ORNAMENTALS	123	145	219	182	373	261
VEGETABLES	23	29	57	39	52	43
TOTAL	335	373	615	514	891	598