

# PLANT DISEASES

# KENTUCKY

Plant Disease Diagnostic Laboratory Summary

1992

by:

P. R. Bachi

B. C. Eshenaur

J. R. Hartman

D. E. Hershman

W. C. Nesmith

P. C. Vincelli

## TABLE OF CONTENTS

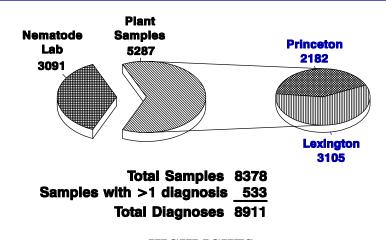
INTRODUCI	1ON	l
HIGHLIGHT	S	1
<b>EXPLANATO</b>	DRY REMARKS	3
ACKNOWLE	DGMENT	
<b>SUMMARY T</b>	ABLES	
Table 1.	Summary of diagnoses by crop category and causal agent type	4
Table 2.	Summary of biotic problems by crop category	<b></b> .5
Table 3.	Number of specimens by crop category	<b></b> 5
Table 4.	Summary of diagnoses by crop category and crop	6
Table 5.	Summary of samples received by grower type and crop group	7
Table 6.	Number of samples referred for diagnosis	8
Table 7.	Special laboratory tests performed	9
Table 8. Nu	mber of specimens received by county (KY and out-of-state	
	sources) and crop category	10
Table 9. Sur	nmary of specialists and diagnosticians making primary	
	diagnoses and consultations	12
	OF INDIVIDUAL SAMPLES BY CROP AND DISEASE/DISC	
_	c crops	
Cor	m	13
For	ages	13
	beans	
Sm	all grains	15
Tol	bacco	16
Fruit crop	S	17-19
Sm	all fruits	17
Tre	ee fruits	18
Herbs		20
<b>I</b> dentificat	ions	21
Miscelland	eous	21
Ornamen	tals	22 <b>-</b> 39
He	rbaceous Ornamentals and Indoors Plants	22
Tu	rfgrass	29
	oody Ornamentals	
Vegetable	S	40-44

#### INTRODUCTION

The Plant Disease Diagnostic Lab (Lexington and Princeton) handled 5287 plant samples and 3091 nematode soil samples during 1992. Samples with more than one problem numbered 496, bringing the total number of actual diagnoses to 6665. The Lexington Lab diagnosed 3105 specimens. The Princeton Lab's specimens totaled 5273; of this number 2182 were plant samples and 3091 were soil samples submitted, exclusively, for soybean cyst nematode analysis. A total of 462 of the nematode samples were submitted by researchers and 2629 were submitted by commercial growers through the county Extension offices.

These numbers are summarized in Figure 1 below:

#### PLANT DISEASE DIAGNOSTIC LAB, TOTALS 1992



#### **HIGHLIGHTS**

The year of 1992, overall, was a good year for plants but there were some periods which boldly tested their endurance. The winter period was mild which helped small grains to green-up ahead of schedule but a sudden cold snap which occurred the previous fall (November 19, 1991) killed the Canola crop and injured many landscape plants, especially azalea and spruce. Spring was characterized by periodic cold temperatures well up into June. This caused injury to many greenhouse and plantbed-grown tobacco plants as well as many ornamentals. Zinc deficiency symptoms in corn and phosphorus deficiency symptoms in tobacco were also encouraged by the abnormally cool temperatures. Along with the cold periods there was below normal rainfall in the spring in the western portion of the state but the central and eastern portions were more normal. During the summer the cooler than normal temperatures continued as indicated by the weather station at Princeton not recording any days over 100 F. The rainfall was more than normal for the summer. Fall seemed to arrive early in mid-August but temperatures climbed once again in early September. Precipitation was relatively low which allowed for many days of field preparation and planting of forages and small grains. Late fall was not marked by any sudden drops in temperature which allowed for steady growth of small grains and gradual hardening-off for landscape plants.

The tobacco "float system" found its way on to more and more farms but early-season cold snaps tested the growers skills as greenhouse managers. We have now cataloged twenty disease organisms/disorders associated with this method of tobacco transplant production, many which are new to the state. Although **Black Shank** once more caused severe problems in many fields across the state, this was not the main disease story. That distiction was held by **Blue Mold** which reared its ugly head first, for a switch, in the western part of the state. The disease infected plantbeds and fields in nearly all western counties and was perhaps as extensive as in 1979. After the fungus got a foot-hold in the west it was only a matter of time before the central and eastern portions of the state were extensively infected.

The other major story in tobacco was the large increase plants infected with viruses. **Tobacco Etch**, **Streak**, **Virus Complex**, and **Tomato Spotted Wilt** each showed a large increase in their occurence.

Corn problems were relatively few and the good growing conditions allowed for record corn yields across the state. **Northern Leaf Blight**, rarely diagnosed over the last decade, was diagnosed regularly during the mid to late growing season. Diplodia Ear Rot became prevalent later in the year. Stalk Rot diseases were noticeable absent.

Soybean problems, as for the last few years, were at a low level. **Soybean Cyst Nematode** remains the major yield-limiting disease factor in the majority of soybean producing acreage. **Sudden Death Syndrome** was also seen in many areas of western Kentucky but overall yields were not affected because symptoms of the disease came along after the crop was already made. **Brown Spot** starting infecting plants much earlier and more severely because of the abundant moisture during the growing season.

Small grains, primarily wheat, were not plagued with as many problems as in the past several years. Periodic cold spells provided much damaged tissue and resulted in colonization by the fungi which cause diseases such as **Septoria Leaf Complex**, and **Glume Blotch**. Head Scab was very much reduced because rains did not occur for the most part during the flowering period.

Forages in general did not suffer from any major disease problems. Root rots of alfalfa, caused by species of *Phytophthora* and *Aphanomyces*, continued to be monitored and were found causing damage in some fields.

On vegetables the cool spring and early summer temperatures favored diseases such as **Downy Mildews** on broccoli and cucumbers as well as **Late Blight** on tomatoes.

Monitoring for **Dogwood Anthracnose** (caused by *Discula destructiva*) continued this year. This distructive disease was first diagnosed in Kentucky in 1989. Several new cases of the disease were found in 1990 (see Figure 2) and beginning in 1991 diagnosis of this disease became relatively common. We continue to monitor the incidence of this disease in the state and educate the ornamental industries and public as to the presence of the disease and control recommendations.

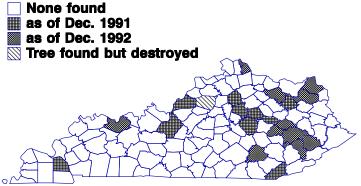


Figure 2. Incidence of Dogwood Anthracnose in Kentucky through 1992.

In addition to the day to day diagnosis of samples, **monitorings** of several organisms

and the diseases they cause are conducted by the diagnostic laboratory during the year. Blue Mold on tobacco is watched very closely because of its destructive potential. The viruses Tomato Spotted Wilt and Impatiens Necrotic Spot are also monitored to alert tobacco and commercial vegetable growers and the floral greenhouse industry, respectively. New hosts for the fastidious xylem-inhabiting bacterium, *Xylella fastidiosa*, are carefully screened. The detection of soybean cyst nematodes in new areas of the state planted to soybeans and on commercial ornamental stock for export is also conducted. In all, a major activity of the laboratory is to serve as an educational resource to County Extension Agents and Extension Specialists for assistance in the diagnosis of plant diseases, common, complex, and new.

#### **EXPLANATORY REMARKS**

As you examine the main body of this report, you will notice three columns of numbers following the diagnosis and causal agent sections. The first column indicates the number of primary diagnoses, the second column the number of secondary diagnoses and the third column is the total of the previous two. The primary diagnosis is the main, or frequently, the only problem observed on a plant sample. If a second problem of equal or lesser importance was observed, it was entered as the secondary diagnosis. Occasionally, a problem may have only been diagnosed as a secondary problem, and never as a primary problem (e.g. Lophodermium needlecast on Pine). In these cases, a zero (0) will appear in the primary diagnosis column to indicate the absence of samples with that particular problem.

<u>No disease</u>: This indicates that no pathogen was observed on the specimen submitted, and that based on the sample and information provided, we were unable to pinpoint an exact abiotic or biotic cause of the problem, if there was one.

<u>Referrals and consultations</u>: Insect problems were generally identified or verified by a specialist in the Entomology Department. Chemical injuries on all commercially grown crops were diagnosed by a weed control specialist or by the crop specialist in the Agronomy or Horticulture Departments. On a number of occasions we also consulted with crop specialists in other departments to diagnose or verify abiotic problems.

<u>Root problems</u>: Samples designated as having a "root problem" had above ground symptoms suggestive of root disfunction and/or evidence of root degeneration, however, a specific biotic or abiotic cause could not be determined.

#### **ACKNOWLEDGEMENTS**

Two technicians within the department of Plant Pathology have made significant contributions to the Plant Diagnostic Laboratories. As the technician in charge of performing all soybean cyst nematode extractions and counting, Debbie Morgan has been dutifully carrying out her responsibilities since 1985 in the Nematode Laboratory in Princeton. Rusty Wiglesworth has been working at the Lexington Laboratory since 1990, performing many valuable services such as computer database management, mailing diagnostic responses and other tasks as needed, all of which contribute to the efficiency of the lab.

We wish to thank Freddie Higgins for his assistance in the computer operation of the lab. We would also like to thank the College of Agriculture's extension specialists and researchers who served as consultants to the diagnostic lab in 1992. Their services ranged from making actual diagnoses to providing answers to plant, insect, weed or pesticide questions. These individuals are too numerous to mention here (see Table 9) but we are grateful nonetheless to each for their valuable assistance.

Table 1.

SUMMARY OF DIAGNOSES¹ BY CROP CATEGORY AND CAUSAL AGENT TYPE.

Crop Category	Abiotic Problems	Biotic <sup>2</sup> Problems	Chemical Injury	Inadequate Specimen	Insect Injury	Other <sup>3</sup>	Total Diagnoses
Agronomic							
Corn	96	58	29	11	28	34	256
Forages	40	68	1	4	8	24	145
Rapeseed (Canola	) 0	0	0	0	0	0	0
Small grains	23	102	3	1	0	13	142
Soybeans	39	3211*	31	2	1	26	3310
Tobacco	801	1040	149	36	21	281	2328
Fruit							
Small fruit	25	39	7	6	11	22	110
Tree fruit	36	88	3	8	35	31	201
<u>Herbs</u>	7	12	0	2	0	3	24
<u>Identification</u>	0	52	0	2	0	0	54
<u>Ornamentals</u>							
Herbaceous and							
Houseplants	49	88	2	8	20	57	224
Turfgrass	23	46	0	3	0	47	119
Woody	436	300	27	82	239	3351	1419
<u>Vegetables</u>	121	232	30	29	22	133	567
Miscellaneous	0	0	0	0	1	11	12
<u>Total</u>	1696	5336	282	194	386	1017	8911

<sup>&</sup>lt;sup>1</sup> All counts and totals include primary diagnoses plus secondary diagnoses.

<sup>&</sup>lt;sup>2</sup> Refer to Table 2 for a further breakdown of this category.

<sup>&</sup>lt;sup>3</sup> "Other" includes the causal agent categories: No disease and Unknown.

<sup>\*</sup> Includes 3091 samples sent to the Nematode Laboratory in Princeton.

Table 2. SUMMARY OF BIOTIC PROBLEMS BY CROP CATEGO
--

Crop					1
Category	Bacterial	Fungal	Nematode	Virus	Other <sup>1</sup>
Agronomic	_			_	
Corn	6	47	0	5	0
Forages	1	66	0	0	1
Rapeseed (Canola)	0	0	0	0	0
Small grains	6	73	0	23	0
Soybeans	2	73	3127	0	0
Tobacco	186	623	0	227	4
Fruit					
Small fruit	0	38	0	1	0
Tree fruit	28	60	0	0	0
<u>Herbs</u>	0	12	0	0	0
<u>Identification</u>	0	27	0	0	25
<u>Ornamentals</u>					
Herbaceous and					
Houseplants	7	73	1	7	0
Turfgrass	Ó	43	0	Ó	
Woody	20	270	1	2	3 7
30 <b>u</b> j	20	2.0	-	_	•
<u>Vegetables</u>	56	139	3	34	0
<u>Miscellaneous</u>	0	0	0	0	0
<u>Total</u>	312	1544	3132	299	39

<sup>&</sup>lt;sup>1</sup> Other includes these categories: Animal (rodent and bird damage), Plant (plant identifications), and Algae, Lichen and MLO (mycoplasma-like organism).

Table 3. NUMBER OF SPECIMENS BY CROP CATEGORY, EXPRESSED AS PERCENTAGES

	Number of	Percentage of
Crop Category	Specimens	Total Specimens
Agronomic (-Tobacco)	3713	44.3
Tobacco	2098	25.0
Fruit 287	3.4	
Herbs	23	0.3
Identifications	53	0.6
Ornamentals	1660	19.8
Vegetables	532	6.4
Miscellaneous	12	0.2
Total Specimens	8378	100.0

SUMMARY OF DIAGNOSES BY CROP CATEGORY AND CROP.

Crop Category and Crop	Number of Primary Diagnoses <sup>1</sup> Diagnoses <sup>3</sup>	Number of Secondary Diagnoses <sup>2</sup>	Total
Agronomic			
Corn	216	40	256
Forages	127	18	145
Rapeseed (Canola)	0	0	0
Small grains	105	37	142
Soybeans	3265	45	3310
Tobacco	2098	230	2328
Fruit			
Small fruit	100	10	110
Tree fruit	187	14	201
<u>Herbs</u>	23	1	24
<u>Identification</u>	53	1	54
Ornamentals			
Herbaceous and			
Houseplants	216	8	224
Turfgrass	113	6	119
Woody	1331	88	1419
Vegetables	532	35	567
Miscellaneous	12	0	12
<u>Total</u>	8378	533	8911

<sup>&</sup>lt;sup>1</sup> The number of primary diagnoses corresponds to the number of different specimens examined.

<sup>&</sup>lt;sup>2</sup> If a second problem was evident on the plant specimen it was considered the secondary diagnosis. See "Expanatory Remarks."

<sup>&</sup>lt;sup>3</sup> Total diagnoses equals the number of primary plus the number of secondary diagnoses.

Table 5.

#### SUMMARY OF SAMPLES RECEIVED BY GROWER TYPE AND CROP GROUP.

	Grower Type								
	Con	mmercial	Но	omeowner	Res	search	Ins	titution	
Crop Group	Ext <sup>1</sup>	Non-Ext <sup>2</sup>	Ext <sup>1</sup>	Non-Ext <sup>2</sup>	Ext <sup>1</sup> No		Ext <sup>1</sup>	Non-Ext <sup>2</sup>	
Agronomic									
Corn	198	12	0	0	4	0	2	0	
Forages	121	2	1	0	3	0	0	0	
Small grains	96	7	0	0	1	0	1	0	
Soybeans	2794	5	0	0	466	0	0	0	
Tobacco	1973	106	0	0	19	0	0	0	
<u>Fruit</u>									
Small Fruit	16	1	72	4	7	0	0	0	
Tree Fruit	33	3	131	13	7	0	0	0	
Tice Truit	33	3	131	13	,	O	O	O	
<u>Herbs</u>	0	2	16	3	1	0	1	0	
Identification	2	0	40	6	1	0	2	2	
Ornamental Herbaceous and	ı								
Houseplants	53	18	120	13	2	0	7	3	
Turfgrass	25	16	59	4	6	0	5	0	
Woody	68	6	1129	54	35	0	28	11	
woody	00	O	112)	51	33	O	20	11	
<u>Vegetable</u>	239	5	266	9	13	0	0	0	
Miscellaneous	2	0	10	0	0	0	0	0	
<u>Total</u>	5620	181	1844	106	565	0	46	16	
Total/Grower Typ	<u>e</u> 5	5801	19	950	56	55		62	
Total number of sa	amples re	eceived =	8378						

<sup>&</sup>lt;sup>1</sup> Ext = Extension samples submitted via County Extension Agents or Extension Specialists.

<sup>&</sup>lt;sup>2</sup> Non-Ext = Non-extension samples submitted directly by the grower or other non-extension clients.

Table 6.

#### NUMBER OF SAMPLES REFERRED TO OTHER DEPARTMENTS, UK LABORATORY FACILITIES OR OUTSIDE AGENCIES FOR DIAGNOSIS.\*

	Crop Category								
Department, Facility or outside agency	Agronomic	Fruit	Ornamental	Vegetable	Other	Total			
Agronomy Department	1	0	1	0	0	2			
Entomology Department	6	4	38	3	0	51			
Horticulture Department	0	1	1	0	0	2			
NC State	0	1	0	0	0	1			
Regulatory Service	s 6	0	2	0	0	8			
Univ. of Georgia	0	1	0	0	0	1			
					<u>Total</u>	65			
			<u>Total</u>	number of plan	t samples	5287			
Percent of plant samples referred outside Diagnostic Lab for diagnosis						1.2%			

<sup>\*</sup> Numbers do not reflect the total number of diagnoses and/or consultations conducted by other departments (See Table 9).

### TABLE 7.

#### SPECIAL LABORATORY TESTS PERFORMED.

Test Number of Cases	
Culturing	80
Incubation	231
Nematode extraction (total = 1641) Pinewood nematode Soybean cyst nematode	11 3091
Soil tests (total = 164) pH Soluble salts pH/Soluble Salts Soil bioassays	218 8 12 1
Virus assays (total = 56) Electron Microscope ELISA Indicator plants	1 84 2

Table 8. NUMBER OF PLANT SAMPLES RECEIVED BY COUNTY AND CROP CATEGORY (KY AND OUT-OF-STATE SOURCES).

			01-0r-31A1	<u> </u>	JE107.		
COUNTY	Total	Agronomic <sup>1</sup>	Tobacco	Fruit	Ornamental	Vegetable	Other
ADAIR	5	2	3	0	0	0	0
ALLEN	71	4	41	2	11	13	0
ANDERSON	20	1	14	2	2	1	0
BALLARD	36	12	19	1	2	2	0
BARREN	87	32	41	2	12	0	0
BATH	58	4	37	5	4	7	1
BELL	19	0	0	5	9	4	1
BOONE	55	1	6	2	34	11	1
BOURBON	73	4	56	2	8	0	3
BOYD	6	0	0	0	5	0	1
BOYLE	60	8	12	3	35	2	0
BRACKEN	17	1	16	0	0	0	0
BREATHITT	32	6	7	1	16	2	0
BRECKINRIDGE	29	2	20	1	5	1	0
BULLITT	66	3	12	7	41	1	2
BUTLER	36	11	15	1	5	3	0
CALDWELL	147	26	57 45	12	37	9	6
CALLOWAY	97	15	47	9	24	2	0
CAMPBELL	40	4	0	4	29	2	1
CARLISLE	16	3	8	1	2	2	0
CARROLL	14	0	8	1	2	3	0
CARTER	38	2	21	1	8	2	1
CASEY	36	2	24	0	4	6	0
CHRISTIAN	298	41	110	21	100	24	2
CLARK	26	3	20	3	10	0	0
CLAY	10	0	4	0	1	5	0
CLINTON	19	2	15	0	1	1	0
CRITTENDEN	24	1	1	7	13	2	0
CUMBERLAND	17	0	13	0	1	3	0
DAVIESS	314	46	78	16	50	124	0
EDMONSON	<i>5</i> 9	5	35	6	8	5	0
ELLIOTT	18	1	14	0	1	3	0
ESTILL	30	1	17	0	7	5	0
FAYETTE	461	19	67	19	317	24	15
FLEMING FLOYD	30 16	0	20	3	6	1	0
	78	1	0 19	2	6 38	1	0
FRANKLIN		5		1		4	11
FULTON GALLATIN	5	0	0 10	1	4	2	0
GARRARD	12 12	0	11		0	0	0
GRANT	28	0	17	1	7	4	0
GRAVES	108	14	59	5	22	6	2
GRAYSON	9	0	3	2	2	2	0
GREEN	6	0	$\frac{3}{4}$	1	0	1	0
GREENUP	10	1	0	2	7	0	0
HANCOCK	16	1	10	0	4	1	0
HARDIN	76	5	12	11	4 37	10	1
HARLAN	6	0	12	1	2	10	
HARRISON	26	$\frac{0}{4}$	16	1	$\frac{2}{4}$	1	1 0
	33		25		0		0
HART HENDERSON	33 74	$\frac{5}{25}$	25 13	2 4	26	1 6	0
HENRY	40	3	28	1	4	4	0
HICKMAN	10	1	2	0	5 97	2	0
HOPKINS	53	10	12	0	25	6	0
JACKSON	28	1	13	3	9	2	0
JEFFERSON	<i>5</i> 7	3	3	1	43	6	1
JESSAMINE	24	0	17	0	6	1	0
JOHNSON	12	0	3	0	5	4	0
KENTON	39	1	4	5	26	2	1
KNOTT	13	0	0	0	13	0	0
KNOX	8	1	6	0	1	0	0

COUNTY	Total	Agronomic <sup>1</sup>	Tobacco	Fruit	Ornamental	Vegetable	Other
LARUE	29	10	14	2	2	0	1
LAUREL	21	2	7	0	6	5	1
LAWRENCE	14	1	9	0	4	0	0
LEE	10	1	4	3	2	0	0
LESLIE	16	0	0	0	6	1	9
LETCHER	0	0	0	0	0	0	0
LEWIS	27	2	21	0	1	3	0
LINCOLN	17	6	5	1	1	3	1
LIVINGSTON	23	11	2	4	6	0	0
LOGAN	99	16	55	6	13	8	1
LYON	31	2	15	1	12	0	1
McCRACKEN	111	10	17	12	60	10	2
McCREARY	5	0	0	0	3	2	0
McLEAN	45	5	24	1	6	8	1
MADISON	107	3	71	5	23	4	1
MAGOFFIN	7	0	7	0	0	0	0
MARION	14	0	4	1	9	0	0
MARSHALL	86	5	22	7	32	19	1
MARTIN	5	0	0	2	0	3	0
MASON	14	1	12	0	1	0	0
MEADE	62	7	37	2	11	3	2
MENIFEE	14	1	7	1	3	2	0
MERCER	37	5	12	3	15	2	0
METCALFE	7	0	7	0	0	0	0
MONROE	15	2	9	0	4	0	0
MONTGOMERY	69	4	34	4	23	3	1
MORGAN	24	0	13	2	4	5	0
MUHLENBERG	47	9	17	0	10	11	0
NELSON	30	11	7	1	12	0	0
NICHOLAS	9	0	7	0	2	0	0
OHIO	10	3	7	0	0	0	0
OLDHAM	37	1	4	2	25	5	0
OWEN	40	2	30	2	6	0	0
OWSLEY	12	0	8	2	2	0	0
PENDELTON	16	3	10	1	2	0	0
PERRY	8	0	4	0	4	0	0
PIKE	0	0	0	0	0	0	0
POWELL	13	1 6	5	1	3 22	3 2	0
PULASKI	44 36	0	9	3 0	1	0	2
ROBERTSON ROCKCASTLE	30 12	1	35 5	0	9	4	0
ROWAN	6	0		0	2 5	0	0
RUSSELL	80	5	1 19		30	22	0
SCOTT	26	0	22	4 0	1	3	0
SHELBY	80	15	29	2	29	2	2
SIMPSON	19	2	8	0	9	0	0
SPENCER	34	5	3	3	11	10	2
TAYLOR	27		14	0	3	3	0
TODD	71	17	35	4	3	11	1
TRIGG	61	5	42	2	7	5	0
TRIMBLE	8	0	42 5	2	0	3 1	0
UNION	8 53	33	э 1	2	9	5	3
WARREN	53 78	6	19	11	9 35	5 6	3 1
WASHINGTON	78 54	7	19 34	0	33 12	1	0
WAYNE	58	5	28	3	8	$\frac{1}{14}$	0
WEBSTER	58 56	3 24	28 17	3 2	8 11	14	1
WHITLEY	36 34	3	17	1	12	0	0
WOLFE	34 16	2	18	0	12 4	0	0
WOODFORD	16 44	2 5	10 13	2	4 21	3	0
Out-of-State	8		78	0	3	0	0
TOTALS	5287	622	2098	287	1660	532	88

<sup>&</sup>lt;sup>1</sup> Agronomic crops include corn, soybeans, forages, rapeseed (Canola) and small grains but in this particular case, it excludes tobacco.

Table 9.

## THE NUMBER OF CASES IN WHICH EXTENSION SPECIALISTS, DIAGNOSTICIANS OR RESEARCHERS WERE INVOLVED IN MAKING A PRIMARY DIAGNOSIS AND THE NUMBER OF CASES IN WHICH THEY SERVED AS CONSULTANTS.

		Number of cases			
Specialists,		Primary			
Researchers, Diagnosticians	Department	Diagnosis <sup>1</sup>	Consultations <sup>2</sup>		
, 3	•	Ŭ			
LEXINGTON					
Anderson, RG	Horticulture	5	4		
Bitzer, MJ	Agronomy	13	1		
Bessin, RT	Entomology	12	6		
Doney, JC	Plant Pathology	O	1		
Eshenaur, BC (Diagnostician)	Plant Pathology	2213	74		
Fountain, WF	Horticulture	1	2		
Green, JD	Agronomy	36	14		
Hartman, JR	Plant Pathology	91	13		
Henning, JC	Agronomy	1	1		
McNiel, RE	Horticulture	1	1		
Nesmith, WC	Plant Pathology	225	33		
Palmer, GK	Agronomy	144	18		
Pirone, TP	Plant Pathology	3	0		
Potter, MF	Entomology	0	1		
Powell, AJ	Agronomy	0	1		
Roberts, CR	Horticulture	0	2		
Smiley, JH	Agronomy	188	6		
Strang, JG	Horticulture	3	4		
Townsend, LH	Entomology	35	15		
Vincelli, PC	Plant Pathology	141	12		
Wigglesworth, MD	Plant Pathology	4	1		
PRINCETON					
Bachi, PR (Diagnostician)	Plant Pathology	1968	62		
Brown, GR	Horticulture	1	18		
Dunwell, WC	Horticulture	$\overline{14}$	74		
Herbek, JH	Agronomy	9	23		
Hershman, DE	Plant Pathology	100	32		
Johnson, DJ	Entomology	6	17		
Lacefield, GD	Agronomy	1	12		
Martin, JR	Agronomy	12	54		
Murdock, LW	Agronomy	4	22		
Maksymowicz, WC	Agronomy	53	135		
Rasnake, M	Agronomy	0	4		

<sup>&</sup>lt;sup>1</sup> The specialist or diagnostician signing the Plant Diagnostic Form was considered the primary diagnoser.

<sup>&</sup>lt;sup>2</sup> In some cases, more than one person was consulted, however, only one name can be entered into the computer database. Therefore, these numbers may indicate fewer consultations than were actually performed.

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
		AGRONOMIC CROPS			
CORN (Zea	)				
	IRACNOSE	- COLLETOTRICHUM	1	0	1
	GY WHIPPING	- UNKNOWN	0	1	1
	COAL ROT	- MACROPHOMINA	0	1	1
	IICAL INJURY	- HERBICIDE, UNKNOWN	26	3	29
	Y TOP	- SCLEROPHTHORA	1	0	1
	KERNEL ROTS	- DIPLODIA	7	0	7
In II y		- FUSARIUM	1	0	1
		- GIBBERELLA	0	1	1
		- RHIZOCTONIA	1	0	1
ENVIE	RONMENTAL	- COLD INJURY	16	1	17
		- COMPACTION	3	1	4
		- OTHER STRESSES	9	6	15
GRAY	LEAF SPOT	- CERCOSPORA	7	2	9
	CUS SPOT	- PSEUDOMONAS	1	0	1
	EQUATE SPECIMEN, NO 1		45	-	45
	CT INJURY	DIGENGE	19	9	28
LEAF	_	- HELMINTHOSPORIUM	1	0	1
2.2.2.2.1		- UNKNOWN	0	1	1
NORT	THERN LEAF BLIGHT	- SETOSPHAERIA	9	1	10
	RITIONAL	- ACID SOIL	12	4	16
11011		- ZN DEFICIENCY	27	0	27
		- OTHERS	11	5	16
ROOT	FROT	- PYTHIUM	1	0	1
	, COMMON	- PUCCINIA	7	4	11
SMUT		- USTILAGO	1	0	1
	ART'S WILT	- ERWINIA	4	0	4
VIRUS		- MAIZE CHLOROTIC DWARI	_	0	1
VIICE	,	- MAIZE DWARF MOSAIC	2	1	3
		- UNKNOWN	1	0	1
		<u>FORAGES</u>			
ALFALFA (	(Medicago)				
	IICAL INJURY	- GROWTH REGULATOR	0	1	1
	VN/ROOT ROT	- FUSARIUM	1	0	1
CROV	VN/STEM ROT	- SCLEROTINIA	1	1	2
ENVIE	RONMENTAL STRESSES		25	2	27
INADI	EQUATE SPECIMEN, NO	DISEASE	19	-	19
INSEC	T INJURY		2	6	8
LEAF	SPOT	- LEPTOSPHAERULINA	16	2	18
		- PSEUDOMONAS	1	0	1
		- PSEUDOPEZIZA	0	1	1
		- STEMPHYLIUM	1	0	1
NUTR	RITIONAL	- B DEFICIENCY	4	0	4
		- OTHER	5	1	6
ROOT	ROT	- APHANOMYCES	28	0	28
		- FUSARIUM	1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#I° DIAGs	#2 DIAGs	TOTAL
ALFALFA	(cont)				
	CANKER	- RHIZOCTONIA	3	0	3
SUMN	MER BLACK STEM	- CERCOSPORA	3	0	3
VARII	EGATION	- GENETIC	1	1	2
CLOVER (	Гrifolium)				
DODI	DER	- CUSCUTA	1	0	1
	RONMENTAL	- STRESS	0	1	1
	EQUATE SPECIMEN, NO DI		5	-	5
SUMN	MER BLACK STEM	- CERCOSPORA	1	0	1
	RASS (Paspalum)				
NO D	ISEASE		1	-	1
	OGRASS (Dactylis)	DDE CANCALED A		0	
LEAF		- DRECHSLERA	1	0	1
NOD	ISEASE		2	-	2
	ASS (Sorghum)	OTT NO.		0	
	RONMENTAL	- STRESS	1	0	1
NOD	ISEASE		1	-	1
		SOYBEAN			
SOYBEAN	(Glycine)				
ANTI	HRACNOSE	- COLLETOTRICHUM	0	1	1
BROV	VN SPOT	- SEPTORIA	9	9	18
CHEM	MICAL INJURY	- HERBICIDE, GROWTH REC	G. 22	4	26
		- UNKNOWN	5	0	5
	NY MILDEW	- PERONOSPORA	3	2	5
	RONMENTAL STRESSES		14	4	18
	EQUATE SPECIMEN, NO DI		28	-	21
	CED CHLOROSIS	- RHIZOBIUM	2	0	2
	CT INJURY		0	1	1
LEAF	SPOT	- ALTERNARIA	1	0	1
		- FUNGAL	1	0	1
NUTE	RITIONAL	- K DEFICIENCY	8	1	9
		- MG DEFICIENCY	2	0	2
		- MN DEFICIENCY	2	3	5
		- POOR NODULATION	1	1	2
DOO!	Γ/STEM ROT	- OTHER	2	0	2
KOO I	I/STEM ROT	- FUNGAL - PHYTOPHTHORA	1 5	0	1 5
		- RHIZOCTONIA	<i>5</i>	5	10
SOVR	EAN CYST NEMATODE - on		$\frac{3}{24}$	12	36
	IETERODERA	* in soil samples	2388	1 2	2388
11		* absent in soil samples	703		703
		(*soil submitted to Nematode Lal			, 00
SHDF	DEN DEATH SYNDROME	- FUSARIUM	37	0	37
VIRUS		- SOYBEAN MOSIAC	2	0	2
VIIXO	,	- UNKNOWN	1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
		SMALL GRAINS			
BARLEY (H	Iordeum) RONMENTAL STRESSES		2	0	2
LEAF S		- SEPTORIA	0	0 1	1
SCALI		- RHYNCHOSPORIUM	1	0	1
MILLET (Po	ennisetum)				
BLAST		- PYRICULARIA	2	0	2
OAT (Avena	a)				
	ONMENTAL STRESSES		1	1	2
	BLIGHT	- SEPTORIA	1	0	1
	BLOTCH	- HELMINTHOSPORIUM	1	0	1
	SEASE		1	-	1
RUST/	LEAF	- PUCCINIA	1	0	1
RYE (Secale)					
	ICAL INJURY	- HERBICIDE	1	0	1
LEAF I	BLIGHT	- SEPTORIA	1	0	1
SORGHUM	(Sorghum)				
	ING-OFF	- RHIZOCTONIA	1	0	1
	HERN LEAF BLIGHT	- EXSEROHILUM	1	0	1
ROOT		- PYTHIUM	1	0	1
VIRUS		- COMPLEX	1	0	1
WHEAT (T					
	K STRIPE	- XANTHOMONAS	0	5	5
CHEM		- HERBICIDE	2	0	2
ENVIR	RONMENTAL	- COLD INJURY	11	3	14
CLUM	E DI OTOLI	- OTHER	2	0	2
	E BLOTCH	- SEPTORIA	12	0	12
	EQUATE SPECIMEN, NO D		13 15	- 21	13 36
LEAF	ВLОТСН	- SEPTORIA	15	21	30
	ITIONAL	- FERTILIZER BURN	2	0	2
	DERY MILDEW	- ERYSIPHE	1	1	2
RUST/	LEAF	- PUCCINIA	2	0	2
SCAB		- GIBBERELLA	4	3	7
SMUT		- USTILAGO	0	1	1
TAKE-		- GAEUMANNOMYCES	3	0	3
TAN S VIRUS		- PYRENOPHORA - BARLEY YELLOW DWARF	0 20	0	1 20
VIKUS		- BARLEY YELLOW DWARF - SOIL-BORNE MOSAIC	20 1	0	20 1
		- SOIL-DONNE MOSAIC	1	V	1

ROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTA
		<u>TOBACCO</u>			
ND A CCC	(Nicotiana)				
ALGA		- BLUE-GREEN	1	1	9
ALGA	L	- GREEN	$\frac{1}{2}$	0	$\frac{2}{2}$
ANCII	LAR LEAF SPOT	- GREEN - PSEUDOMONAS	79	21	100
	RACNOSE	- COLLETOTRICHUM	4	21	6
	ERIAL SOFT ROT	- ERWINIA	24	3	27
BLACI		- ERWINIA	17	23	40
	K ROOT ROT	- CHARLARA	34	5 5	39
	K SHANK	- PHYTOPHTHORA	245	1	246
	MOLD	- PERONOSPORA	159	12	240 171
	N SPOT	- ALTERNARIA	119	5	16
	IICAL INJURY	- ALTERNARIA - BURN	4	0	4
CHEW	IICAL INJUKI	- DISINFECTANT	2	0	2
		- FUNGICIDE	1	0	1
		- GROWTH REGULATOR	43	1	$\frac{1}{44}$
		- GROW III REGULATOR	40	1	44
		- HERBICIDE	62	2	64
		- HYDRAULIC FLUID	2	0	2
		- INSECTICIDE	0	1	1
		- STREPTOMYCIN	0	1	1
		- SUCKER AGENT	5	2	7
		- UNKNOWN	29	1	30
CROW	VN/STEM ROT	- RHIZOCTONIA	13	2	15
	•	- SCLEROTINIA	27	0	27
CULT	URAL	- TRANSPLANT SHOCK	4	0	4
		- OTHER	20	2	22
DAMP	ING-OFF	- RHIZOCTONIA	1	0	1
EARL	Y FLOWERING	- ENVIRONMENTAL	8	0	8
ENVIE	RONMENTAL	- COLD INJURY	103	10	113
		- COMPACTION	10	4	14
		- LIGHTNING	20	1	21
		- WET FEET	12	4	16
		- WEATHER SCALD	35	9	44
		- OTHER	71	9	80
FALSE	BROOMRAPE	- UNKNOWN	1	0	1
FRENC	CHING	- METABOLITES	5	0	5
FROG	EYE	- CERCOSPORA	10	3	13
HOLL	OW STALK	- ERWINIA	18	1	19
HOUS	EBURN	- BACTERIAL	2	0	2
INADI	EQUATE SPECIMEN, NO	DISEASE, UNKNOWN	317	-	317
INSEC	T INJURY		10	11	21
LEAF	SPOT	- PHYSIOLOGICAL	7	1	8
NUTR	ITIONAL	- ACID SOIL	25	4	29
		- FERTILIZER BURN	50	4	54
		- K DEFICIENCY	23	6	29
		- MN TOXICITY	122	6	128
		- N DEFICIENCY	30	5	35
		- P DEFICIENCY	133	10	143
		- OTHER	12	3	15
DHVCI	CAL INJURIES		6	2	8

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTA
ГОВАСС0	(cont)				
	DERY MILDEW	- OIDIUM	1	0	1
	GED SPOT	- ASCOCHYTA	1	0	1
	ΓROT	- PYTHIUM	20	5	25
	SHIN	- RHIZOCTONIA	27	7	34
	AGE MOLD	- ASPERGILLUS	1	0	1
5101	MIGE WICED	- MUCOR	1	0	1
		- PENICILLIUM	0	1	1
STUN	T	- MYCORRHIZAE	$\frac{\sigma}{2}$	0	2
	SET SPOT	- RHIZOCTONIA	12	5	17
	EGATION	- GENETIC	12	0	
			_	_	1
VIRUS	5	- ALFALFA MOSAIC	6	1	7
		- COMPLEX	64	6	70
		- POTATO VIRUS Y	0	1	1
		- TOBACCO ETCH	21	9	30
		- TOBACCO MOSAIC	2	1	3
		- TOBACCO RINGSPOT	10	1	11
		- TOBACCO STREAK	11	5	16
		- TOBACCO VEIN MOTTLIN	G = 2	0	2
		- TOMATO SPOTTED WILT	56	3	59
		- UNKNOWN	25	3	28
WEAT	ΓHER FLECK	- OZONE	14	3	17
WILT		- FUSARIUM	2	1	3
		FRUIT CROPS			
		SMALL FRUITS			
	RY (Vaccinium)				
	RONMENTAL STRESSES		3	1	4
	SPOT	- CERCOSPORA	0	1	1
	ISEASE		4	-	4
NUTF	RITIONAL	- FE DEFICIENCY	1	0	1
	S - Blackberry and Raspberr		1	0	1
CANE	BLIGHT	- GNOMONIA	1	0	1
OHE	MOAL INITIDY	- PHOMA	1	0	1
	MICAL INJURY	- HERBICIDE	1	0	1
	BLE BLOSSOM	- CERCOSPORELLA	1	0	1
	RONMENTAL	- COLD INJURY	12	2	14
	BLIGHT	- ERWINIA	1	0	1
	EQUATE SPECIMEN, NO	DISEASE	8	-	8
	CT INJURY		4	0	4
	SPOT	- SEPTORIA	2	0	2
ORAN	NGE RUST	- GYMNOCONIA	1	0	1
ROOT	ΓROT	- PHYTOPHTHORA	3	0	3
ROSE		- CERCOSPORELLA	2	0	2
VIRUS		- STERILITY	0	1	1
CURRANT		anner a			
LEAF	SPOT	- SEPTORIA	1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
GOOSEBE	CRRY (Ribes)				
INSE	CT INJURY		0	1	1
	DERY MILDEW	- species	1	0	1
GRAPE (Vi	itis)				
	HRACNOSE	- ELSINOE	1	0	1
BITT	ER ROT	- MELANCONIUM	1	0	1
	CK ROT	- GUIGNARDIA	11	0	11
	MICAL INJURY	- GROWTH REGULATOR	5	0	5
CTIL		- UNKNOWN	1	1	2
DOW	'NY MILDEW	- PLASMOPORA	1	1	2
	RONMENTAL	- COLD INJURY	1	1	2
		- COLD INJUNI - BOTYRTIS	1	0	
	MOLD		1 7	U	1
	EQUATE SPECIMEN, NO I	DISEASE	7	-	7
INSE	CT INJURY		3	0	3
	ERRY (Fragaria)				
	HRACNOSE	- COLLETOTRICHUM	2	0	2
	CK ROOT	- COMPLEX	1	0	1
	CK ROOT ROT	- RHIZOCTONIA	2	0	2
ENVI	RONMENTAL STRESS		2	0	2
FRUI	ΓRΟΤ	- GLOEOSPORIUM	1	0	1
GRAY	MOLD	- BOTRYTIS	2	0	2
INAD	EQUATE SPECIMEN, NO I	DISEASE	9	-	9
	CT INJURY		3	0	3
	SPOT	- MYCOSPHAERELLA	1	0	1
	RITIONAL	- ACID SOIL	0	1	1
		TREE FRUITS			
APPLE (Ma	alus)				
BITT	ER ROT	- GLOMERELLA	2	0	2
	RKNOT	- PHYSIOLOGICAL	1	0	1
	AR APPLE RUST	- GYMNOSPORANGIUM	0	3	3
	AR QUINCE RUST	- GYMNOSPORANGIUM	11	0	11
	AR ROT	- PHYTOPHTHORA	2	0	2
	RONMENTAL STRESSES		2	0	2
	BLIGHT	- ERWINIA	24	1	24
FLYS		- SCHIZOTHYRIUM	1	1	2
FROC		- BOTRYOSPHAERIA	5	0	5
	WTH CRACK	- ENVIRONMENTAL	1	0	
				U	1
	EQUATE SPECIMEN, NO I	JISEASE	21	-	21
	CT INJURY	DIMETOLOGICAL	12	2	14
	ROTIC LEAF BLOTCH	- PHYSIOLOGICAL	4	0	4
	RITIONAL	- GENERAL	l	0	1
	SICAL INJURY	- MOWER	1	0	1
SCAB		- VENTURIA	5	1	6
	ГҮ ВLОТСН	- GLOEODES	1	1	2
TAZAT	NUT WILT	- JUGLONE	1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
CHERRY (I	Prunus)				
	IICAL INJURY	- UNKNOWN	1	0	1
	RONMENTAL	- COLD INJURY	7	0	7
	EQUATE SPECIMEN, NO		4	-	4
	T INJURY		2	0	2
	DERY MILDEW	- PODOSPHAERA	1	0	1
PEACH, N	ECTARINE and APRICOT	(Prunus)			
	MOLD	- PENICILLIUM	0	1	1
BROV	VN ROT	- MONILINIA	5	0	5
CANK	ER	- LEUCOSTOMA	1	0	1
	RONMENTAL STRESSES		4	1	5
INAD	EQUATE SPECIMEN, NO	DISEASE	5	-	5
INSEC	T INJURY		11	1	12
NUTF	RITIONAL	- NITROGEN DEFICIENCY	4	0	4
WHIT	TE ROT	- BOTRYOSPHAERIA	2	0	2
PEAR (Pyru	ıs)				
CHEM	IICAL INJURY	- UNKNOWN	0	1	1
CULT	URAL	- TRANSPLANT SHOCK	1	0	1
ENVI	RONMENTAL STRESSES		5	0	5
FIRE 1	BLIGHT	- ERWINIA	3	0	3
PECAN (Ca	rya)				
ENVII	RONMENTAL	- COLD INJURY	1	0	1
INSEC	CT INJURY		4	1	5
NO D	ISEASE		3	-	3
PHYS	IOLOGICAL	- INTERNAL BREAKDOWN	4	0	4
SCAB		- CLADOSPORIUM	1	0	1
PLUM (Pru					
	K KNOT	- APIOSPORINA	8	0	8
	VN ROT	- MONILINIA	1	0	1
	RONMENTAL STRESSES		2	0	2
	EQUATE SPECIMEN, NO	DISEASE	7	-	7
INSEC	CT INJURY		3	0	3
PLUM	POCKETS	- TAPHRINA	4	0	4

	HERBS			
BASIL (Ocimum) ROOT ROT	BHIZOCTONIA	1	0	1
ROOT ROT	- RHIZOCTONIA	1	0	1
BAY (Persea) NO DISEASE		1	-	1
DI A CIK DEDDED (T)				
BLACK PEPPER (Tiper) EXODATE	- NATURAL	1	0	1
CHAMOMILE (Anthemis) INADEQUATE SPECIMEN		1	-	1
GARLIC (Allium) NO DISEASE		1	-	1
CINCENC (D. )				
GINSENG (Panax) BLIGHT	- ALTERNARIA	1	0	1
DAMPING-OFF	- RHIZOCTONIA	2	0	2
ENVIRONMENTAL STRESSES	1111200101111	5	0	5
NO DISEASE		1	-	1
ROOT KNOW NEMATODE	- MELOIDOGYNE	3	0	3
ROOT ROT	- FUSARIUM	1	1	2
	- PHYTOPHTHORA	1	0	1
ROSEMARY (Rosmarinus)				
CULTURAL STRESS		1	0	1
SAGE (Salvia)				
GRAY MOLD	- BOTRYTIS	1	0	1
INADEQUATE SPECIMEN		1	-	1
THYME (Thymus)				
GRAY MOLD	- BOTRYTIS	1	0	1

CAUSAL AGENT

#1° DIAGs

#2 DIAGs

**TOTAL** 

**CROP** 

**DIAGNOSIS** 

CROP DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTA
	IDENTIFICATIONS	<u>S</u>		
FUNGAL IDENTIFICATION				
AGARICUS	- CAMPESTRIS	1	0	1
AURICULARIA	- species	1	0	1
BASIDIOMYCETE	- UNKNOWN	3	0	3
CALOCERA	- species	1	0	1
CALVATIA	- GIGANTEA	1	0	1
CAVULINA	- CRISTATA	1	0	1
CHANTERELLE	- species	1	0	1
CHANTHARELLOS	- species	1	0	1
CHLOROPHYLLUM	- MOLYBDITES	1	0	1
GANODERMA	- CURTISII	1	0	1
GANODERWIT	- species	1	0	1
HYMENOGASTER	- species	1	0	1
INADEQUATE SPECIMEN	- species	2	V	2
LICHENS	- species	11	0	11
MORCHELLA	- species	4	0	4
MUTINUS	- Species - CANINUS	1	0	1
MOTINOS	- CANINOS	1	U	1
LANT IDENTIFICATION				
ACANTHOPANAX	- SIEBOLDIANUS	1	0	1
ACER	- NEGUNDO	1	0	1
BRASSICA	- species	3	0	3
CITRUS	- PARADIS	1	0	1
CONIUM	- MACULATUM	1	0	1
DIGITARIA	- ISCHAEMON	1	0	1
DODDER	- CUSCUTA	1	0	1
JUGLANS	- CINEREA	1	0	1
LIGUSTRUM	- VULGARE	1	0	1
LIQUIDAMBAR	- species	1	0	1
LYCOPODIUM	- OBSCURUM	1	0	1
PETUNIA	- species	2	0	2
PRUNUS	- SEROTINA	1	0	1
RHODODENDRON	- species	1	0	1
RHUS	- RADCANS	1	0	1
ROBINIA	- HISPINIA	1	0	1
ULMUS	- PUMILA	1	0	1
XANTHIUM	- STRUMARIUM	1	0	1
	MISCELLANEOUS			
SOIL NO DISPLACE				
NO DISEASE		11	-	11
VEED		_	0	
INSECT INJURY		1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#I° DIAGs	#2 DIAGs	TOTAL
		ORNAMENTALS			
		HERBACEOUS ORNAMENTALS AND IND	OOR PLANTS		
	M (Ageratum) CT INJURY		1	0	1
ALOE (Alo	e) ISEASE		2	-	2
ALYSSUM ROOT	(Lobularia) Γ ROT	- RHIZOCTONIA	1	0	1
	Г <b>Н (Gomphrena)</b> ISEASE		1	-	1
	olyscias) URAL CT INJURY	- OEDEMA	1 1	0 0	1 1
	EATH (Gypsophila) ISEASE		1	-	1
ENVII NO D ROOT	HRACNOSE RONMENTAL ISEASE FROT DERY MILDEW	- COLLETOTRICHUM - STRESS - PYTHIUM - OIDIUM - IMPATIENS NECROTIC SPO	1 1 2 1 2 OT 1	0 0 - 0 0	1 1 2 1 2 2
	N FIG (Ficus) RONMENTAL	- STRESS	2	0	2
STEM	CT INJURY I ROT	- CURVULARIA	1 1	0	1 1
CAMELLIA INSEC	A (Camellia) CT INJURY		1	0	1
CANNA (C BACT	anna) ERIAL BUD ROT	- XANTHOMONAS	1	0	1
CELISIA (C NO D	Celisia) ISEASE		1	-	1

CROP	DIAGNOSIS	CAUSAL AGENT	#I° DIAGs	#2 DIAGs	TOTAL
CHRYSAN	THEMUM (Chrysanthemum)	)			
BACT	ERIAL BLIGHT	- ERWINIA	1	0	1
	STEM BLIGHT	- COLLETOTRICHUM	1	0	1
	C/STEM ROT	- PYTHIUM	2	0	2
VIRUS	<b>5</b>	- POTYVIRUS	1	0	1
CITRON (C					
ROOT	ROT	- RHIZOCTONIA	1	0	1
CLEMATIS	G (Clematus)				
	VN GALL	- AGROBACTERIUM	1	0	1
NO D	ISEASE		1	-	1
COLUMBI	NE (Aquilegia)				
	T INJURY		1	0	1
CROWN-O	F-THORNS (Euphorbia)				
	EQUATE SPECIMEN		1	-	1
CYPRESSA	/INE (Ipomoea)				
	CT INJURY		1	0	1
DAFFODII	(Narciceus)				
	RONMENTAL	- COLD INJURY	1	0	1
DAHLIA (I	Jahlia)				
	MOLD	- BOTRYTIS	1	0	1
DAICY (Ch.					
	rysanthemum) ISEASE		1	-	1
	Hemerocallis)	- STRESS	1	0	1
CULT	RONMENTAL	- OEDEMA	1 3	0	1 3
	SCORCH	- COLLETOTRICHUM	1	0	1
	ISEASE	- COLLETOTRICITON	1	-	1
D E	T71.670 1.1				
	<b>UM (Delphinium)</b> EQUATE SPECIMEN		1	_	1
			•		•
DIANTHU	<b>S (Dianthus)</b> ISEASE		o		9
ROOT		- RHIZOCTONIA	2 1	0	2 1
ROOI	. KO1	- MILOUTOMA	1	U	1
	S (Dictamus)				_
NO D	ISEASE		1	-	1
DUSTY-MI	LLER (Centauria)				
ROOT	TROT	- RHIZOCTONIA	1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
	.UM (Epiphyllum)				
ENVI	RONMENTAL	- STRESS	1	0	1
FERN (vari	ous)				
	CURAL	- TRANSPLANT SHOCK	1	0	1
	ISEASE	CENTEDAL	2	-	2
NUII	RITIONAL	- GENERAL	1	0	1
FIG (FICU					
	CT INJURY		1	0	1
	ISEASE		3	-	3
SOOT	TY MOLD	- species	1	0	1
FUCHSIA	(Fuchsia)				
GRAY	MOLD	- BOTRYTIS	1	0	1
	A (Gardenia)				
NO D	ISEASE		2	-	2
GAYFEAT	HER (Liatris)				
ROO	ΓROT	- RHIZOCTONIA	1	0	1
GERANIII	M (Pelargonium)				
	TERIAL BLIGHT	- XANTHOMONAS	1	0	1
	MICAL INJURY	- BURN	1	0	1
	CURAL	- OEDEMA	3	0	3
ENVI	RONMENTAL	- WET FEET	1	0	1
GRAY	MOLD	- BOTRYTIS	1	0	1
INAD	EQUATE SPECIMEN, NO	DISEASE	3	-	3
NUTI	RITIONAL	- FERTILIZER BURN	1	0	1
		- SOLUBLE SALTS	1	0	1
RUST		- PUCCINIA	3	0	3
STEM	I ROT	- SCLEROTINIA	1	0	1
GODETIA	(Godetia)				
	ISEASE		1	-	1
HENS-ANI	D-CHICKS (Sempervivum)				
	SPOT	- COLLETOTRICHUM	1	0	1
HOLLYHO	OCK (Althaea)				
RUST		- PUCCINIA	1	0	1
HOSTA (H	losta)				
	RONMENTAL STRESS		2	1	3
	E MOLD	- species	1	0	1
O LIAIVI.		Species .	*	o o	*

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
IMPATIEN	S (Impatiens)				
AIR P	OLLUTION	- UNKNOWN	1	0	1
CULT		- OVERWATERING	1	0	1
GRAY	MOLD	- BOTRYTIS	2	0	2
INAD	EQUATE SPECIMEN, NO D	DISEASE	7	-	7
NUTE	ITIONAL	- SOLUBLE SALTS	1	0	1
		- UNKNOWN	1	0	1
ROOT	ROT	- PYTHIUM	0	1	1
STEM	ROT	- RHIZOCTONIA	1	0	1
VIRUS	3	- IMPATIENS NECROTIC SPO	T 2	0	2
IRIS (Iris)					
BACT	ERIAL SOFT ROT	- ERWINIA	1	0	1
INSEC	T INJURY		1	0	1
IVY (various	s)				
ENVII	RONMENTAL STRESSES		4	0	4
LEAF	SPOT	- COLLETOTRICHUM	2	1	3
		- PHYLLOSTICTA	1	0	1
NO D	ISEASE		1	-	1
JADE PLAI	NT (Crassula)				
	DERY MILDEW	- SPHAEROTHECA	1	0	1
KALANCH	OE (Kalanchoe)				
ROOT		- RHIZOCTONIA	1	0	1
LANTANA	(Lantana)				
INSEC	T INJURY		1	0	1
NO D	ISEASE		1	-	1
LARKSPUI	R (Delphinium)				
	SPOT	- ASCOCHYTA	1	0	1
LILY (Liliu	n)				
	MOLD	- BOTRYTIS	1	0	1
LYTHIUM	(Lythium)				
	ISEASE		2	-	2
MARIGOL	D (Tagetes)				
	ERIAL LEAF SPOT	- XANTHOMONAS	1	0	1
	RONMENTAL STRESSES		2	0	2
	MOLD	- BOTRYTIS	1	0	1
	T INJURY		1	0	1
LEAF		- SEPTORIA	1	0	1
	ITIONAL	- NITROGEN DEFICIENCY	1	0	1
ROOT		- RHIZOCTONIA	1	0	1
VIRUS		- IMPATIENS NECROTIC SPO	OT 1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
ORANGE (	Citrus) YT INJURY		1	0	1
	-		-	Ç	-
ORCHID (V	Various) VN SPOT	- PSEUDOMONAS	1	0	1
PACHYSAI	NDRA (Pachysandra)				
LEAF/	STEM BLIGHT	- PSEUDONECTRIA	3	0	3
NO D	ISEASE		1	-	1
PALM (varie	ous)				
	RONMENTAL	- STRESS	1	0	1
NO D	ISEASE		1	-	1
PANSY (Vic	ola)				
NO D	ISEASE		2	-	2
NUTR	RITIONAL	- NITROGEN DEFICIENCY	1	0	1
PEONY (Pa	neonia)				
ENVII	RONMENTAL	- COLD INJURY	1	0	1
	ISEASE		1	-	1
RED S	SPOT	- CLADOSPORIUM	2	0	2
PETUNIA (	(Petunia)				
	RONMENTAL STRESSES		2	0	2
	RITIONAL	- CALCIUM DEFICIENCY	1	0	1
VIRUS	5	- IMPATIENS NECROTIC SPC	OT 1	0	1
PHILODEN	NDRON (Philodendron)				
	ISEASE		1	-	1
PHYS	ICAL INJURY	- HUMAN	1	0	1
PHLOX (Pi	hlox)				
	K ROOT ROT	- CHARLARA	1	0	1
NO D	ISEASE		2	-	2
POINSETT	TA (Euphorbia)				
	RONMENTAL	- STRESS	2	0	2
	ISEASE		3	-	3
	RITIONAL	- GENERAL	2	0	2
ROOT		- PYTHIUM	2	0	2
ROOT	T/STEM ROT	- FUSARIUM	0	1	1
		- RHIZOCTONIA	2	0	2
	CA (Portulaca)				
	IICAL INJURY	- HERBICIDE	1	0	1
VIRUS	5	- UNKNOWN	1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
	US (Rhoicissus) ISEASE		2	_	2
	<b>LANT (Ficus)</b> EQUATE SPECIMEN		1	-	1
SALVIA (Sa	alvia)				
	MOLD	- BOTRYTIS	1	0	1
NO D	ISEASE		1	-	1
ROOT	ΓROT	- RHIZOCTONIA	0	1	1
SCHEFFLE	ERA (Brassaia)				
	RONMENTAL STRESSES		3	0	3
	CT INJURY		3	0	3
	ISEASE		1	-	1
NUTF	RITIONAL	- OVER FERTILIZATION	1	0	1
SEDUM (Se	edum)				
	ISEASE		1	_	1
	Γ KNOT NEMATODE	- MELOIDOGYNE	1	0	1
SNAPDRA	GON (Antirrhinum)				
	NY MILDEW	- PERONOSPORA	5	0	5
STEM		- FUSARIUM	1	0	1
SPATHIPE	IYLLUM (Spathiphyllum)				
	ISEASE		1	_	1
	ΓROT	- CYLINDROCLADIUM	1	0	1
STR A W/FI	OWER (Helichrysum)				
	T/STEM ROT	- RHIZOCTONIA	1	0	1
SIINFI OW	/ER (Helianthus)				
	ISEASE		1	-	1
SWEET W	OODRUF (Galium)				
	VN ROT	- ALTHELIA	1	0	1
	EQUATE SPECIMEN	- ALTHELM	1	-	1
трт марет	VINE (Campsis)				
	TINE (Campsis) TINJURY		1	0	1
	DERY MILDEW	- species	0	1	1
1000	DIMI WILLDEWY	- species	V	1	1
UNKNOW			_	^	
INSEC	CT INJURY		1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
	~~ .				
VERBENA INSEC	(Verbena) CT INJURY		1	0	1
VINCA (Vi	nca)				
•	XER/DIEBACK	- PHOMA	2	0	2
CULT	URAL	- OVERWATERING	1	0	1
		- TRANSPLANT SHOCK	1	0	1
GRAY	MOLD	- BOTRYTIS	2	0	2
INAD	INADEQUATE SPECIMEN, NO DISEASE			-	4
INSEC	CT INJURY		1	0	1
VIOLET (V	viola)				
INSEC	CT INJURY		2	0	2
	ISEASE		2	-	2
POW	DERY MILDEW	- SPHAEROTHECA	1	0	1
YARROW	(Achillea)				
FLOV	VER MOLD	- PENICILLIUM	1	0	1
YUCCA (Y	ucca)				
LEAF		- CONIOTHYRIUM	1	0	1
ZINNIA (Z	innia)				
	DERY MILDEW	- ERYSIPHE	1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTA
		<u>TURFGRASS</u>			
BENTGRA	SS (Agrostis)				
ALGA	Æ	- BLUE-GREEN	2	0	2
ANTI	HRACNOSE	- COLLETOTRICHUM	2	0	2
BROV	VN PATCH	- RHIZOCTONIA	1	0	1
CULT	URAL	- OVERWATERING	1	0	1
ENVI	RONMENTAL	- WET FEET	1	0	1
FADI	NG OUT	- CURVULARIA	1	0	1
INAD	EQUATE SPECIMEN, NO	DISEASE	10	-	10
ROO	Г КОТ	- PYTHIUM	3	3	6
YELL	OW PATCH	- RHIZOCTONIA	2	0	2
BERMUDA	AGRASS (Cyndon)				
SMUT		- USTILAGO	2	0	2
BLUEGRA	SS (Poa)				
	HRACNOSE	- COLLETOTRICHUM	1	0	1
BROV	VN PATCH	- RHIZOCTONIA	2	0	2
CULT	URAL	- HEAVY THATCH	6	0	6
DOLI	AR SPOT	- LANZIA./MOELL.	3	0	3
ENVI	RONMENTAL	- COMPACTION	0	1	1
LEAF	SPOT	- SEPTOSPHAERULINA	0	1	1
NO D	ISEASE		13	-	13
RED 7	ΓHREAD	- LAETISARIA	2	0	2
RUST	,	- FUNGAL	1	0	1
		- PUCCINIA	1	0	1
FESCUE (F	'estuca)				
	VN PATCH	- RHIZOCTONIA	3	0	3
CULT	URAL	- UNDERWATERING	1	0	1
ENVI	RONMENTAL STRESSES		6	0	6
INAD	EQUATE SPECIMEN, NO	DISEASE	10	-	10
RED 7	ΓHREAD	- LAETISARIA	1	0	1
POW.	DERY MILDEW	- ERYSIPHE	1	0	1
SLIM	E MOLD	- species	1	0	1
SMUT	Γ	- USTILAGO	1	0	1
RYEGRAS	S (Lolium)				
	HRACNOSE	- COLLETOTRICHUM	1	0	1
LEAF	SPOT	- DRECHSLERA	1	0	1
	ISEASE		2	-	2
RUST		- PUCCINIA	1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
TURF (Var.	ious)				
ALGA		- GREEN	1	0	1
	WN PATCH	- RHIZOCTONIA	2	0	2
	TURAL	- HEAVY THATCH	2	0	2
	LAR SPOT	- LANZIA./MOELL.	1	0	1
	RONMENTAL STRESSES		5	0	5
	EQUATE SPECIMEN, NO I	DISEASE	11	-	11
	SPOT	- DRECHSLERA	0	1	1
	ROTIC RING SPOT	- LEPTOSPHAERULINA	1	0	1
	ГНREAD	- LAETISARIA	1	0	1
	E MOLD	- LAETISARIA - species	1	0	1
	MER PATCH	•	0	_	1
		- PHIALOPHORA	_	$\frac{1}{0}$	_
Y E.L.L	OW PATCH	- RHIZOCTONIA	1	U	1
		WOODY ORNAMENTAL	<u>.S</u>		
	(Calycanthus)				
NO D	DISEASE		2	-	2
	TAE (Thuja)				
	RONMENTAL STRESS		5	0	5
	CT INJURY		3	0	3
NO D	ISEASE		6	-	6
				0	0
	SICAL INJURY	- UNKNOWN	2	0	2
TWIC	G BLIGHT	- PESTALOTIOPSIS	0	1	1
ASH (Fraxi	•				
	HRACNOSE	- DISCULA	17	0	17
CHEN	MICAL	- UNKNOWN	1	0	1
ENVI	RONMENTAL STRESSES		2	1	3
INAD	EQUATE SPECIMEN, NO I	DISEASE	4	-	4
INSEC	CT INJURY		2	1	3
	DERY MILDEW	- PHYLLACTINIA	1	0	1
AZALEA -	See listing under RHODODE	NDRON			
	RESS (Taxodium)				
INSEC	CT INJURY		1	0	1
BARBERR'	Y (Berberis)				
	TURAL	- TRANSPLANT SHOCK	1	0	1
	RONMENTAL	- COLD INJURY	2	0	2
	EQUATE SPECIMEN, NO I		2	-	2
BAYBERR					
CULT	CURAL	- TRANSPLANT SHOCK	1	0	1

BEECH (Fagus)   CANKER	2 ) 2 ) 1 ) 1 ) 1 ) 1
NO DISEASE	2 ) 2 ) 1 ) 1 ) 1 ) 1
BIRCH (Betula)   ENVIRONMENTAL	2 ) 2 ) 1 ) 1 ) 1 ) 1
ENVIRONMENTAL - STRESS 1 1 1 1 1 INSECT INJURY 2 0 0 1 LEAF SPOT - FUNGAL 1 0 0 - GLOEOSPORIUM 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 0 1 0 1 0 1 - 1
INSECT INJURY	2 ) 1 ) 1 ) 1 - 1
LEAF SPOT	1 ) 1 ) 1 - 1
- MARSSONINA 1 0  NO DISEASE 1	1 - 1 0 1
NO DISEASE NUTRITIONAL PHYSICAL INJURY CONSTRUCTION  BITTERSWEET (Celatrus) FRUIT SPOT INADEQUATE SPECIMEN  ENVIRONMENTAL SERVITORY COLLETOTRICHUM  BOXELDER (Acer) INADEQUATE SPECIMEN, NO DISEASE INSECT INJURY COLLETOTRICHUM  BOXWOOD (Buxus) CULTURAL  TRANSPLANT SHOCK  I 0  1 - 0	- 1 ) 1
NUTRITIONAL - FE DEFICIENCY 1 0 PHYSICAL INJURY - CONSTRUCTION 1 0  BITTERSWEET (Celatrus)  FRUIT SPOT - CLADOSPORIUM 1 0 INADEQUATE SPECIMEN 1 - CIADOSPORIUM 1 1 0 INADEQUATE SPECIMEN 1 0 INSECT INJURY 0 1 INSECT INJURY 0 1 INSECT INJURY 0 1 INSECT INJURY 1 0 INSECT INJURY 1 1 0 INJURY 1 1 0 INJURY 1 1 1 0 INJURY 1 1 1 0 INJURY 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1
PHYSICAL INJURY - CONSTRUCTION 1 0  BITTERSWEET (Celatrus) FRUIT SPOT - CLADOSPORIUM 1 0 INADEQUATE SPECIMEN 1 -  BLACKGUM (Nyssa) ENVIRONMENTAL - WET FEET 1 0 INSECT INJURY 0 1 LEAF SPOT - COLLETOTRICHUM 1 0  BOXELDER (Acer) INADEQUATE SPECIMEN, NO DISEASE 2 - INSECT INJURY 1 0  BOXELDER (Acer) INADEQUATE SPECIMEN, NO DISEASE 2 - INSECT INJURY 1 0  BOXWOOD (Buxus) CULTURAL - TRANSPLANT SHOCK 1 0	
BITTERSWEET (Celatrus)   FRUIT SPOT	) 1
FRUIT SPOT - CLADOSPORIUM 1 0 INADEQUATE SPECIMEN 1 - CLADOSPORIUM 1 - CLADOSPORIUM 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
INADEQUATE SPECIMEN 1 -  BLACKGUM (Nyssa)  ENVIRONMENTAL - WET FEET 1 0 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
BLACKGUM (Nyssa)  ENVIRONMENTAL - WET FEET 1 0 INSECT INJURY 0 1 LEAF SPOT - COLLETOTRICHUM 1 0  BOXELDER (Acer) INADEQUATE SPECIMEN, NO DISEASE 2 - INSECT INJURY 1 0  BOXWOOD (Buxus) CULTURAL - TRANSPLANT SHOCK 1 0	=
ENVIRONMENTAL - WET FEET 1 0 INSECT INJURY 0 1 LEAF SPOT - COLLETOTRICHUM 1 0  BOXELDER (Acer) INADEQUATE SPECIMEN, NO DISEASE 2 - INSECT INJURY 1 0  BOXWOOD (Buxus) CULTURAL - TRANSPLANT SHOCK 1 0	- 1
INSECT INJURY LEAF SPOT - COLLETOTRICHUM 1 0  BOXELDER (Acer) INADEQUATE SPECIMEN, NO DISEASE 2 - INSECT INJURY 1 0  BOXWOOD (Buxus) CULTURAL - TRANSPLANT SHOCK 1 0	
LEAF SPOT - COLLETOTRICHUM 1 0  BOXELDER (Acer) INADEQUATE SPECIMEN, NO DISEASE 2 - INSECT INJURY 1 0  BOXWOOD (Buxus) CULTURAL - TRANSPLANT SHOCK 1 0	1
BOXELDER (Acer) INADEQUATE SPECIMEN, NO DISEASE 2 - INSECT INJURY 1 0  BOXWOOD (Buxus) CULTURAL - TRANSPLANT SHOCK 1 0	=
INADEQUATE SPECIMEN, NO DISEASE 2 - INSECT INJURY 1 0  BOXWOOD (Buxus) CULTURAL - TRANSPLANT SHOCK 1 0	1
INSECT INJURY 1 0  BOXWOOD (Buxus)  CULTURAL - TRANSPLANT SHOCK 1 0	
BOXWOOD (Buxus) CULTURAL - TRANSPLANT SHOCK 1 0	- 2
CULTURAL - TRANSPLANT SHOCK 1 0	1
FNVIRONMENTAL COLD INITIRV 5 00	1
<u>g</u>	<del>-</del>
NO DISEASE 2	- 2
BUCKTHORN (Rhamnus)	
INADEQUATE SPECIMEN 1 -	- 1
CATALPA (Catalpa)	
CHEMICAL INJURY - UNKNOWN 1 0	
ENVIRONMENTAL - COLD INJURY 1 0	=
INADEQUATE SPECIMEN 1 - PHYLLOSTICTA 1 0	- 1 ) 1
CEDAR - See listing under JUNIPER	
CHAMAECYPARIS (Chamaecyparis) NO DISEASE 4 -	- 4
NO DISEASE 4	, 4
CHERRY (Prunus)  CHI TURAL  TRANSPLANT SHOCK  2	
CULTURAL - TRANSPLANT SHOCK 3 0 ENVIRONMENTAL STRESSES 19 0	
INADEQUATE SPECIMEN, NO DISEASE 8 -	=
INSECT INJURY 1 0	

CROP DIA	GNOSIS	CAUSAL AGENT	#I° DIAGs	#2 DIAGs	TOTAL
CHERRY LAUREL	(Prunus)				
CHEMICAL IN	•	- HERBICIDE	0	1	1
ENVIRONMEN	-	- COLD INJURY	1	0	1
NO DISEASE			1	-	1
COTONEASTER (C	oneaster)				
CULTURAL		- OVERWATERING	1	0	1
COTTONWOOD (I	Populus)				
LEAF SPOT		- MARSSONINA	1	0	1
CRABAPPLE (Malus	)				
CANKER		- BOTRYOSPHAERIA	0	1	1
CULTURAL		- TRANSPLANT SHOCK	1	0	1
FROGEYE		- BOTRYOSPHAERIA	1	0	1
	E SPECIMEN, NO	DISEASE	4	-	4
INSECT INJUE			1	1	2
NUTRITIONA	L	- N DEFICIENCY	1	0	1
SCAB		- VENTURIA	4	0	4
WOOD DECA	Y	- BASIDIOMYCETE	1	0	1
GRAPEMYRTLE (L					
POWDERY MI	LDEW	- ERYSIPHE	3	0	3
DOGWOOD (Cornu					
ANTHRACNO		- DISCULA	17	0	17
CHEMICAL IN	JURY	- GROWTH REGULATOR	1	0	1
		- UNKNOWN	2	0	2
CULTURAL		- TRANSPLANT SHOCK	7	1	8
	NTAL STRESSES		20	4	24
FALL COLOR		- NORMAL	1	0	1
	E SPECIMEN, NO	DISEASE	66	-	66
INSECT INJUE			4	1	5
LEAF SCORCE	i	- ENVIRONMENTAL	3	0	3
I E A E CROTE		- UNKNOWN	3	0	3
LEAF SPOT		- PHOMOPSIS	1	0	1
		- PHYLLOSTICTA	2	0	2
NUMBRICALA	T	- SEPTORIA	4	0	4
NUTRITIONA	L	- ACID SOIL	0	1	1
CDOT ANTERIO	ACNOSE	- UNKNOWN	1	0	1
SPOT ANTHR		- ELSINOE	4	0	4
THREAD BLIC		- CERATOBASIDIUM - BASIDIOMYCETE	1	0	1
WOOD DECA	1	- DASIDIUMTULTE	1	U	1
DOUGLAS FIR (Pse			1		1
INADEQUATE	L SPECIMEN		1	-	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
ELM (Ulmu	ıs)				
DECL		- UNKNOWN	1	0	1
DUTO	CH ELM DISEASE	- CERATOCYSTIS	5	0	5
INAD	EQUATE SPECIMEN, NO	DISEASE	12	-	12
	CT INJURY		3	0	3
WOO	D DECAY	- BASIDIOMYCETE	1	0	1
	US (Euonymus)				
	IICAL INJURY	- UNKNOWN	1	0	1
	VN GALL	- AGROBACTERIUM	3	0	3
	URAL	- OEDEMA	1	0	1
DOW	NY MILDEW	- PERONOSPORA	1	0	1
ENVII	RONMENTAL STRESSES		6	1	7
INSEC	CT INJURY		6	0	6
NO D	ISEASE		4	-	4
POWI	DERY MILDEW	- MICROSPHAERA	6	1	7
FILBERT (					
CHEM	IICAL INJURY	- UNKNOWN	1	0	1
FIR (Abies)					
	URAL	- IMPROPER DEPTH	1	0	1
	RONMENTAL	- WET FEET	1	0	1
	CT INJURY		2	0	2
NO D	ISEASE		1	-	1
TIP B	LIGHT	- SPHAEROPSIS	1	0	1
	IA (Forsythia)				
INAD	EQUATE SPECIMEN, NO	DISEASE	4	-	4
HACKBER					
	CT INJURY		3	0	3
	ISEASE		1	-	1
WOO	D DECAY	- BASIDIOMYCETE	1	0	1
	RN (Crataegus)				
	R-QUINCE RUST	- GYMNOSPORANGIUM	1	0	1
	URAL	- TRANSPLANT SHOCK	1	0	1
	RONMENTAL	- WET FEET	0	1	1
	BLIGHT	- ERWINIA	1	0	1
	CT INJURY		2	0	2
LEAF	BLIGHT	- ENTOMOSPORIUM	1	0	1
HEMLOCK					
	URAL	- IMPROPER DEPTH	1	0	1
	RONMENTAL	- WET FEET	5	0	5
	CT INJURY		2	0	2
	ISEASE		3	-	3
NEED	OLE DROP	- NORMAL	1	0	1
HIBISCUS					
CHEM	MICAL INJURY	- UNKNOWN	1	0	1

CROP DLA	AGNOSIS	CAUSAL AGENT	#I° DIAGs	#2 DIAGs	TOTAL
HICKORY (Carya)					
INADEQUAT	E SPECIMEN		2	-	2
INSECT INJUI			5	0	5
NUTRITIONA		- ZINC DEFICIENCY	1	0	1
HOLLY, INKBERR	Y and WINTERBE	RRY (Ilex)			
BLACK ROOT		- CHARLARA	2	0	2
CULTURAL		- IMPROPER DEPTH	1	0	1
		- NO POLLINATION	1	0	1
		- OEDEMA	1	0	1
		- TRANSPLANT SHOCK	3	0	3
ENVIRONME	NTAL STRESSES		11	2	13
INADEQUAT	E SPECIMEN, NO	DISEASE	14	-	14
INSECT INJUI			9	2	11
LEAF DROP		- NORMAL	0	1	1
LEAF SPOT		- FUNGAL	3	0	3
		- PHYLLOSTICTA	1	0	1
NUTRITIONA	ΛL	- IRON DEFICIENCY	3	1	4
		- HIGH pH	1	0	1
TWIG BLIGH	Т	- PHOMA	1	0	1
HONEYLOCUST (	Gleditsia)				
ENVIRONME		- STRESS	0	1	1
INSECT INJUI			1	0	1
LEAF SPOT		- CERCOSPORA	1	0	1
		- SEPTORIA	1	0	1
HONEYSUCKLE (I	onicera)				
ENVIRONME		- COLD INJURY	1	0	1
NO DISEASE			1	-	1
HYDRANGEA (Hyd	drangea)				
INSECT INJUI			3	0	3
NO DISEASE	W1		2	-	2
JUNIPER (Juniperus)	`				
CEDAR/APPL		- GYMNOSPORANGIUM	1	0	1
CEDAR/QUIN		- GYMNOSPORANGIUM	1	0	1
CULTURAL	CE KUSI	- TRANSPLANT SHOCK	3	0	3
	NTAL STRESSES	- INAINSTLAINT SHOCK	8	0	8
INSECT INJUI			9	2	o 11
NO DISEASE	IV 1		9 22	۷	22
PHYSICAL IN	HIDV	- UNKNOWN		0	
SLIME MOLD			1 1	0	1 1
SLIME MOLD		- species - KABATINA	6		7
TWIG BLIGH	'T'	KABATINA		1	

CROP	DIAGNOSIS	CAUSAL AGENT #	<sup>#</sup> I° DIAGs	#2 DIAGs	TOTAL
LILAC (Syri	inga)				
	ERIAL BLIGHT	- PSEUDOMONAS	1	0	1
CULT	URAL	- OEDEMA	1	0	1
		- TRANSPLANT SHOCK	3	0	3
ENVII	RONMENTAL STRESSES		2	0	2
INAD	EQUATE SPECIMEN, NO 1	DISEASE	4	-	4
INSEC	T INJURY		1	0	1
POWI	DERY MILDEW	- MICROSPHAERA	1	0	1
SOOT	Y MOLD	- species	0	1	1
LINDEN (1					
	RONMENTAL	- STRESS	1	0	1
INAD]	EQUATE SPECIMEN		1	-	1
LOCUST (I					0
	T INJURY	CDD COOD OD .	3	0	3
LEAF		- CERCOSPORA	1	0	1
NO D	ISEASE		1	-	1
	A (Magnolia)	DOTATION ON A C	0		
	ERIAL LEAF SPOT	- PSEUDOMONAS	0	1	1
	RONMENTAL STRESSES		5	3	8
	CT INJURY	ENVIDONMENTEAT	11	$\frac{2}{0}$	13
	SCORCH	- ENVIRONMENTAL	4	0	4
LEAF		- FUNGAL	2	U	2
	ISEASE	IDON DEFICIENCY	3	-	3
	ITIONAL ICAL INJURY	- IRON DEFICIENCY - BIRD	1	0	1 1
		DIND.	•	v	•
MAHONIA					
	RONMENTAL	- WINTER INJURY	1	0	1
NO D	ISEASE		1	-	1
MAPLE (Ad					
ANTH	IRACNOSE	- DISCULA	1	1	2
		- KABATIELLA	6	0	6
	S-EYE SPOT	- CRISTULARIELLA	1	0	1
	IICAL INJURY	- HERBICIDE	2	0	2
	URAL	- TRANSPLANT SHOCK	6	0	6
DECL		- ENVIRONMENTAL, UNKNOV		0	4
	RONMENTAL STRESSES	DICEACE	19	2	21
	EQUATE SPECIMEN, NO 1	DISEASE	46	-	46
	T INJURY	ENTARONIMENTE A L'INTENION	27 VNI 2	1	28
	SCORCH	- ENVIRONMENTAL, UNKNOV		0	3
LEAF	31/01	- DICHOMERA - PHYLLOSTICTA	1 9	0	1 10
		- PHYLLOSTIC TA - SEPTORIA	9	1 0	
מידין זון	ITIONAL	- SEPTORIA - ACID SOIL	0	1	1 1
NUIN	ITIONAL	- ACID SOIL - GENERAL	1	0	1
		- GENERAL - SOLUBLE SALTS	2	0	2
	ICAL INJURY	- TOPPING	1	0	1
PHVC		- 1 \ / 1   1   N \ T	1	V	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
MOUNTA	IN ASH (Sorbus)				
CANI	· · · · · · · · · · · · · · · · · · ·	- CYTOSPORA	1	0	1
MOUNTA	IN LAUREL (Kalmia)				
	SPOT	- PHYLLOSTICTA	1	0	1
	CT INJURY		0	1	1
MULBERF	RY (Morus)				
	CORN DISEASE	- CIBORIA	1	0	1
OAK (Que	rcus)				
	HRACNOSE	- APIOGNOMONIA	2	0	2
ВАСТ	TERIAL SCORCH	- XYLELLA	10	0	10
CANI	KER/DIEBACK	- BOTRYOSPHAERIA	1	0	1
CHEN	MICAL INJURY	- GROWTH REGULATOR	4	0	4
		- HERBICIDE	4	0	4
CULT	TURAL	- TRANSPLANT SHOCK	1	0	1
ENVI	RONMENTAL STRESSES		11	1	12
INAD	EQUATE SPECIMEN, NO	DISEASE	26	-	26
INSE	CT INJURY		22	5	27
LEAF	BLISTER	- TAPHRINA	1	0	1
LEAF	SCORCH	- ENVIRONMENTAL	4	0	4
LEAF	SPOT	- TUBAKIA	13	4	17
NUTI	RITIONAL	- ACID SOIL	2	0	2
		- GENERAL	0	1	1
		- IRON DEFICIENCY	4	3	7
		- HIGH pH	1	0	1
PHYS	SICAL INJURY	- UNKNOWN	1	0	1
POW	DERY MILDEW	- species	3	1	4
WOC	DD DECAY	- BASIDIOMYCETE	1	0	1
	ΓREE (Saphora)				
NO D	DISEASE		1	-	1
PEAR (Pyro					
CHEM	MICAL INJURY	- GROWTH REGULATOR	1	0	1
		- HERBICIDE	1	0	1
	TURAL	- TRANSPLANT SHOCK	3	0	3
ENVI	RONMENTAL	- STRESS	2	0	2
FIRE	BLIGHT	- ERWINIA	1	0	1
INAD	EQAUTE SPECIMEN, NO	DISEASE	3	-	3
INSE	CT INJURY		1	0	1
PHOTINIA					
LEAF	SPOT	- ENTOMOSPORIUM	3	0	3
PINE (Pinu					
	POLLUTION	- OZONE	1	0	1
CANI	KER	- ATROPELIS	1	0	1
		- FUNGAL	1	0	1
	TURAL	- TRANSPLANT SHOCK	13	0	13
DECI	INE	- ENVIRONMENTAL	1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#I° DIAGs	#2 DIAGs	TOTAL
PINE (cont)	,				
	RONMENTAL STRESSES		20	4	24
INAD	EQUATE SPECIMEN, NO I	DISEASE	51	-	51
	CT INJURY		35	2	37
	OLE CAST	- LOPHODERMIUM	3	0	3
NEED	OLE DROP	- NORMAL	7	0	7
NEED	LE RUST	- COLEOSPORIUM	5	0	5
PHYS	ICAL INJURY	- CULTURAL	1	0	1
		- WOODPECKER	1	0	1
PINEV	WOOD NEMATODE	- BURSAPHELENCUS	1	0	1
SOOT	Y MOLD	- species	3	0	3
TIP B	LIGHT	- SPHAEROPSIS	37	0	37
TIP B	URN	- UNKNOWN	2	0	2
UNKN	NOWN	- SAPROPHYTE	1	0	1
	D DECAY	- ASCOMYCETE	1	0	1
	TE PINE DECLINE	- ENVIRONMENTAL	24	0	24
PLUM (Pru					
	RONMENTAL	- COLD INJURY	1	0	1
INAD	EQUATE SPECIMEN		1	-	1
POPLAR (F					
	MICAL INJURY	- GROWTH REGULATOR	1	0	1
	RONMENTAL	- COLD INJURY	14	0	14
	CT INJURY		5	0	5
	BLIGHT	- MARSSONINA	1	0	1
NO D	ISEASE		3	-	3
PRIVET (L	igustrum) RONMENTAL	- WET FEET	1	0	1
ENVII	KONMENTAL	- WEI FEEI	1	Ü	1
PYRACAN'	THA (Pyracantha)				
ENVII	RONMENTAL	- WET FEET	1	0	1
FIRE I	BLIGHT	- ERWINIA	1	0	1
INSEC	CT INJURY		2	1	3
NO D	ISEASE		1	-	1
SCAB		- SPILOCAEA	1	0	1
RAINTREE					
CANK	ŒR	- CYTOSPORA	1	0	1
REDBUD (		DOCEDNIC CONT. CONT.	_	0	_
CANK		- BOTRYOSPHAERIA	1	0	1
	URAL	- TRANSPLANT SHOCK	1	0	1
	RONMENTAL	- COLD INJURY	1	0	1
	EQUATE SPECIMEN, NO 1	DISEASE	2	-	2
	CT INJURY	A Happan Cara a say a	2	0	2
WILT		- VERTICILLIUM	1	0	1
	D, DAWN (Metasequoia)	COLD IMILIDA	1	0	1
ENVII	RONMENTAL	- COLD INJURY	1	0	1

CROP	DIAGNOSIS	CAUSAL AGENT	#I° DIAGs	#2 DIAGs	TOTA
RHODODI	ENDRON and AZALEA (Rh	ododendron)			
	URAL	- OEDEMA	1	0	1
COLI		- TRANSPLANT SHOCK	9	0	9
DIEBA	A CV	- BOTRYOSPHAERIA	$\frac{g}{2}$	1	3
		- BOTKTOSFITAERIA		_	
	RONMENTAL STRESSES	DICEACE	15	1	16
	EQUATE SPECIMEN, NO	DISEASE	28	-	28
	CT INJURY		10	1	11
	FLOWER GALL	- EXOBASIDIUM	2	0	2
LEAF	SCORCH	- WINTER DRYING	1	0	1
NUTE	RITIONAL	- FE DEFICIENCY	1	0	1
PHYS	ICAL INJURY	- CONSTRUCTION	1	0	1
ROSE (Rosa	a)				
	K SPOT	- DIPLOCARPON	3	1	4
	VN CANKER	- CRYPTOSPORELLA	0	1	1
	MICAL INJURY	- GROWTH REGULATOR	1	0	1
CITEN	near ngeni	- HERBICIDE	2	0	2
CHIT	URAL	- HEAT STRESS		0	
		- HEAT STRESS	1	_	1
	RONMENTAL STRESSES		2	1	3
	MOLD	- BOTRYTIS	1	0	1
	EQUATE SPECIMEN, NO	DISEASE	3	-	3
INSEC	CT INJURY		1	1	2
PHYS	ICAL INJURY	- UNKNOWN	2	0	2
POWI	DERY MILDEW	- SPHAEROTHECA	3	0	3
ROSE		- UNKNOWN	5	0	5
	ANTHRACNOSE	- ELSINOE	0	1	1
VIRUS		- ROSE MOSAIC	1	1	2
RTISSTANLO	OLIVE (Elaeagnus)				
CANK		- BOTRYOSPHAERIA	1	0	1
FRVICER	ERRY (Amelanchier)				
CULT		- TRANSPLANT SHOCK	1	0	1
COLI	UKAL	- TRANSI LANT SHOCK	1	V	1
	O <b>D (Oxydendrum)</b> RONMENTAL	COLD INILIBY	1	0	1
ENVII	KONMENTAL	- COLD INJURY	1	Ü	1
PRUCE (P	Kaaa)				
	•	DUNICAL	^	1	1
CANK		- FUNGAL	0	1	1
CULT	URAL	- OEDEMA	1	0	1
		- TRANSPLANT SHOCK	2	1	3
	RONMENTAL STRESSES		17	1	18
	CT INJURY		27	2	29
NEED	OLE CAST	- RHIZOSPHAERA	2	0	2
NO D	ISEASE		20	-	20
	ICAL INJURY	- UNKNOWN	1	0	1
WEETGU	JM (Liquidambar)				
		OFDEMA	0	0	0
CULT	URAL	- OEDEMA	2	0	2

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
SYCAMOR	E and PLANETREE (Platant	.15)			
	IRACNOSE	- APIOGNOMONIA	8	0	8
	URAL	- TRANSPLANT SHOCK	1	0	1
	ISEASE		1	-	1
	AD BLIGHT	- CERATOBASIDIUM	1	0	1
TAXUS (Ta	· ·				
	ERIAL SOFT ROT	- ERWINIA	1	0	1
BLAC		- ERWINIA	0	1	1
CULT	URAL	- IMPROPER DEPTH	1	0	1
		- OEDEMA	0	1	1
ENVII	RONMENTAL STRESSES		16	0	16
INAD	EQUATE SPECIMEN, NO	DISEASE	36	-	36
INSEC	CT INJURY		1	0	1
	ICAL INJURY	- PRUNING	0	1	1
ROOT	_	- PHYTOPHTHORA	1	0	1
	E (Liriodendron)				
AIR P	OLLUTION	- OZONE	0	1	1
ANTH	IRACNOSE	- GLOMERELLA	2	0	2
INAD	EQUATE SPECIMEN, NO	DISEASE	2	-	2
POWI	DERY MILDEW	- PHYLLACTINIA	1	0	1
THRE	AD BLIGHT	- CERATOBASIDIUM	1	0	1
	M (Viburnum)				
	ERIAL LEAF SPOT	- PSEUDOMONAS	1	0	1
INAD	EQUATE SPECIMEN, NO	DISEASE	4	-	4
INSEC	CT INJURY		1	0	1
WALNUT					
	IRACNOSE	- GNOMONIA	1	0	1
	CT INJURY		1	0	1
NUTR	RITIONAL	- ZINC DEFICIENCY	1	0	1
WEIGELA			_		_
NO D.	ISEASE		1	-	1
WILLOW	•	DOTENVO CRITA ERIA	1	1	0
CANK	EK	- BOTRYOSPHAERIA	1	1	2
CD OI	INI CALL	- CRYPTODIAPORTHE	0	1	1
	VN GALL	- AGROBACTERIUM	1	0	1
	RONMENTAL STRESSES	DIGE A GE	6	0	6
	EQUATE SPECIMEN, NO	DISEASE	5	-	5
	CT INJURY		2	0	2
LEAF	BLIGHT	- VENTURIA	1	0	1
WISTERIA			1		1
NO D.	ISEASE		1	-	1
	WOOD (Cladrastis)	TED ANICON ANTE CLIC CV	•	0	1
	URAL	- TRANSPLANT SHOCK	1	0	1
ENVII	RONMENTAL	- WET FEET	0	1	1

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
		VEGETABLES			
ASPARAG	US (Asparagus)				
	CT INJURY		1	0	1
NO D	DISEASE		1	-	1
BEAN (Pha	aseolus)				
	POLLUTION	- OZONE	1	0	1
ANTI	HRACNOSE	- COLLETOTRICHUM	2	0	2
DAM	PING-OFF	- RHIZOCTONIA	2	0	2
ENVI	RONMENTAL STRESSES		10	1	11
GRAY	Y MOLD	- BOTRYTIS	1	0	1
INAD	DEQUATE SPECIMEN, NO	DISEASE	10	-	10
INSEC	CT INJURY		1	2	3
	RITIONAL	- ACID SOIL	1	0	1
		- GENERAL	1	0	1
		- NITROGEN TOXICITY	1	0	1
ROO	ΓPROBLEM	- UNKNOWN	1	0	1
ROO	T/STEM ROT	- RHIZOCTONIA	6	1	7
RUST		- UROMYCES	1	0	1
VIRU	S	- BEAN COMMON MOSAIC	1	0	1
		- BEAN YELLOW MOSAIC	7	0	7
WEB	BLIGHT	- RHIZOCTONIA	1	0	1
YEAS	T SPOT	- NEMATOSPORA	1	0	1
BROCCOI	LI - see listing under CRUCIFI	ERS			
CABBAGE	E - see listing under CRUCIFE	RS			
CANTALC	OUPE - see listing under CUC	URBITS			
CAULIFLO	OWER - see listing under CRU	JCIFERS			
CORN, swe	eet (Zea)				
CHEN	MICAL INJURY	- UNKNOWN	1	0	1
CULT	ΓURAL	- POOR GERMINATION	1	0	1
EAR/I	KERNEL ROT	- DIPLODIA	1	0	1
ENVI	RONMENTAL	- STRESS	1	0	1
INAD	DEQUATE SPECIMEN, NO	DISEASE	3	-	3
INSE	CT INJURY		2	0	2
NOR	ΓHERN LEAF BLIGHT	- SETOSPHAERIA	0	1	1
	RITIONAL	- ACID SOIL	2	0	2
NUTI		- FERTILIZER BURN	1	0	1
NUTI		- MANGANESE TOXICITY	1	0	1
NUTI		MENOTE LEGE TOTALETT			
NUTI		- UNKNOWN	1	0	1
NUTI			1 2	0	1 2
	R POLLINATION	- UNKNOWN	=	=	
		- UNKNOWN - ZN DEFICIENCY	2	0	2
POOI RUST		- UNKNOWN - ZN DEFICIENCY - UNKNOWN	2	0	2 1
POOI RUST	VART'S WILT	- UNKNOWN - ZN DEFICIENCY - UNKNOWN - PUCCINIA	2 1 2 7	0 0 0	2 1 2
POOI RUST STEW	VART'S WILT	- UNKNOWN - ZN DEFICIENCY - UNKNOWN - PUCCINIA - ERWINIA	2 1 2 7	0 0 0 0	2 1 2 7

CROP	DIAGNOSIS	CAUSAL AGENT	#I° DIAGs	#2 DIAGs	TOTA
CRUCIFE	RS-BROCCOLL CARRAGE	CAULIFLOWER, KALE and TURNI	P (Brassica) and R	ADISH (Raphanus)	
	CK ROOT ROT	- APHANOMYCES	2	()	2
	CK ROT	- XANTHOMONAS	3	0	3
	CK SPOT	- ALTERNARIA	3	1	4
	MICAL INJURY	- GROWTH REGULATOR	1	0	1
CITIA		- HERBICIDE	1	0	1
CHLT	ΓURAL	- OEDEMA	0	1	1
	PING-OFF	- PYTHIUM	1	0	1
Dilivi	11.13 011	- RHIZOCTONIA	1	0	1
DOW	NY MILDEW	- PERONOSPORA	5	0	5
	Y FLOWERING	- ENVIRONMENTAL	1	0	1
	RONMENTAL STRESSES		2	0	2
	DEQUATE SPECIMENS, NO	DISEASE	16	-	16
	SPOT	- PSEUDOMONAS	1	0	10
	RITIONAL	- ACID SOIL	1	0	1
11011		- GENERAL	1	0	1
		- UNKNOWN	1	0	1
ROO	T KNOT NEMATODE	- MELOIDOGYNE	1	0	1
	E STEM	- RHIZOCTONIA	3	0	3
	WATERMELON (Ci			0	1
	HRACNOSE	- COLLETOTRICHUM	1	0	1
	FERIAL SPOT	- XANTHOMONAS	1	0	1
	FERIAL WILT	- ERWINIA	5	0	5
	MICAL INJURY	- UNKNOWN	2	0	2
	TURAL PRINCE OF THE	- TRANSPLANT SHOCK	1	0	1
DAM	PING-OFF	- PYTHIUM	1	0	l
DOI		- RHIZOCTONIA	1	0	1
	NY MILDEW	- PSEUDOPERONOSPORA	2	1	3
	RONMENTAL STRESSES	DINIGIO O GIGIT	6	0	6
	T CRACK	- PHYSIOLOGICAL	1	0	1
	T ROT	- CHOANEPHORA	1	1	2
	MY STEM BLIGHT	- DIDYMELLA	2	0	2
	DEQUATE SPECIMEN, NO I	DISEASE	26	-	26
	CT INJURY	A LOSEDNIA DIA	2	0	2
	SPOT	- ALTERNARIA	0	2	2
NUTI	RITIONAL	- ACID SOIL	2	0	2
DOLL	DIATESON DROBE EM	- UNKNOWN	2	0	2
	LINATION PROBLEM	- UNKNOWN	2	0	2
POW	DERY MILDEW	- ERYSIPHE	3	0	3
DO C	TROT	- SPHAEROTHECA	1	0	1
	TROT	- FUSARIUM	1	0	1
VIRU	S	- CUCUMBER MOSAIC	1	0	1
		- SQUASH MOSAIC	1	0	1
B.C. C.	TROT	- UNKNOWN	1	0	1
ROO	TROT	- FUSARIUM	3	0	3
	T/STEM ROT	- RHIZOCTONIA			

CHEMICAL INJURY	0 0 0 0	1 1 1 1 1
LETTUCE (Lactuca)   CHEMICAL INJURY	0 0 - 0	1 1 1
CHEMICAL INJURY	0 - 0	1 1
CHEMICAL INJURY	0 - 0	1 1
NO DISEASE   1   NUTRITIONAL	0	1
NUTRITIONAL - ACID SOIL 1  OKRA (Hibiscus)  BLACK ROOT ROT - CHARLARA 1 INADEQUATE SPECIMEN, NO DISEASE 3  ONION (Allium)  NUTRITIONAL - FERTILIZER BURN 1  PEA (Pisum)  CULTURAL - OEDEMA 1 ENVIRONMENTAL - SUNSCLAD 2 INADEQUATE SPECIMEN, NO DISEASE 3 NUTRITIONAL - IRON DEFICIENCY 1 ROOT ROT - RHIZOCTONIA 1 VIRUS - PEA MOSAIC 1 VIRUS - PEA MOSAIC 1 UNKNOWN 1  PEANUT (Arachis)  BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1  PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL IEAF SPOT - ERWINIA 1 BACTERIAL IEAF SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	Ü	
OKRA (Hibiscus)           BLACK ROOT ROT         - CHARLARA         1           INADEQUATE SPECIMEN, NO DISEASE         3           ONION (Allium)           NUTRITIONAL         - FERTILIZER BURN         1           PEA (Pisum)           CULTURAL         - OEDEMA         1           ENVIRONMENTAL         - SUNSCLAD         2           INADEQUATE SPECIMEN, NO DISEASE         3           NUTRITIONAL         - IRON DEFICIENCY         1           ROOT ROT         - RHIZOCTONIA         1           VIRUS         - PEA MOSAIC         1           UNKNOWN         1           PEANUT (Arachis)           BLIGHT         - BOTRYTIS         1           INSECT INJURY         1           STEM BLIGHT         - SCLEROTINIA         1           PEPPER (Capsicum)           ANTHRACNOSE         - COLLETOTRICHUM         5           BACTERIAL LEAF SPOT         - ERWINIA         1           BACTERIAL SPOT         - ERWINIA         1           BACTERIAL SPOT         - XANTHOMONAS         25           BLOSSOM END ROT         - CA DEFICIENCY/DRY         1           CHEMICAL INJURY	Ü	1
BLACK ROOT ROT - CHARLARA 1 INADEQUATE SPECIMEN, NO DISEASE 3  ONION (Allium)  NUTRITIONAL - FERTILIZER BURN 1  PEA (Pisum)  CULTURAL - OEDEMA 1 ENVIRONMENTAL - SUNSCLAD 2 INADEQUATE SPECIMEN, NO DISEASE 3 NUTRITIONAL IRON DEFICIENCY 1 ROOT ROT - RHIZOCTONIA 1 VIRUS - PEA MOSAIC 1 - UNKNOWN 1  PEANUT (Arachis)  BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1  PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	0	
BLACK ROOT ROT - CHARLARA 1 INADEQUATE SPECIMEN, NO DISEASE 3  ONION (Allium)  NUTRITIONAL - FERTILIZER BURN 1  PEA (Pisum)  CULTURAL - OEDEMA 1 ENVIRONMENTAL - SUNSCLAD 2 INADEQUATE SPECIMEN, NO DISEASE 3 NUTRITIONAL - IRON DEFICIENCY 1 ROOT ROT - RHIZOCTONIA 1 VIRUS - PEA MOSAIC 1 - UNKNOWN 1  PEANUT (Arachis)  BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1  PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - ERWINIA 1 BACTERIAL SPOT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	0	
INADEQUATE SPECIMEN, NO DISEASE  ONION (Allium)  NUTRITIONAL - FERTILIZER BURN 1  PEA (Pisum)  CULTURAL - OEDEMA 1 ENVIRONMENTAL - SUNSCLAD 2 INADEQUATE SPECIMEN, NO DISEASE 3 NUTRITIONAL - IRON DEFICIENCY 1 ROOT ROT - RHIZOCTONIA 1 VIRUS - PEA MOSAIC 1 - UNKNOWN 1  PEANUT (Arachis) BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1  PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL LEAF SPOT - SANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	_	1
PEA (Pisum)  CULTURAL - OEDEMA 1 ENVIRONMENTAL - SUNSCLAD 2 INADEQUATE SPECIMEN, NO DISEASE 3 NUTRITIONAL - IRON DEFICIENCY 1 ROOT ROT - RHIZOCTONIA 1 VIRUS - PEA MOSAIC 1 - UNKNOWN 1  PEANUT (Arachis)  BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1 STEM BLIGHT - SCLEROTINIA 1  PPEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - SCANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	-	3
PEA (Pisum)  CULTURAL - OEDEMA 1 ENVIRONMENTAL - SUNSCLAD 2 INADEQUATE SPECIMEN, NO DISEASE 3 NUTRITIONAL - IRON DEFICIENCY 1 ROOT ROT - RHIZOCTONIA 1 VIRUS - PEA MOSAIC 1 - UNKNOWN 1  PEANUT (Arachis)  BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1 STEM BLIGHT - SCLEROTINIA 1  PPEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - SCANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1		
PEA (Pisum)           CULTURAL         - OEDEMA         1           ENVIRONMENTAL         - SUNSCLAD         2           INADEQUATE SPECIMEN, NO DISEASE         3           NUTRITIONAL         - IRON DEFICIENCY         1           ROOT ROT         - RHIZOCTONIA         1           VIRUS         - PEA MOSAIC         1           - UNKNOWN         1           PEANUT (Arachis)           BLIGHT         - BOTRYTIS         1           INSECT INJURY         1           STEM BLIGHT         - SCLEROTINIA         1           PEPPER (Capsicum)           ANTHRACNOSE         - COLLETOTRICHUM         5           BACTERIAL LEAF SPOT         - ERWINIA         1           BACTERIAL SPOT         - XANTHOMONAS         25           BLOSSOM END ROT         - CA DEFICIENCY/DRY         1           CHEMICAL INJURY         - GROWTH REGULATOR         3           - HERBICIDE         1	0	1
CULTURAL - OEDEMA 1 ENVIRONMENTAL - SUNSCLAD 2 INADEQUATE SPECIMEN, NO DISEASE 3 NUTRITIONAL - IRON DEFICIENCY 1 ROOT ROT - RHIZOCTONIA 1 VIRUS - PEA MOSAIC 1 - UNKNOWN 1  PEANUT (Arachis) BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1  PEPPER (Capsicum) ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	U	1
ENVIRONMENTAL - SUNSCLAD 2 INADEQUATE SPECIMEN, NO DISEASE 3 NUTRITIONAL - IRON DEFICIENCY 1 ROOT ROT - RHIZOCTONIA 1 VIRUS - PEA MOSAIC 1 - UNKNOWN 1  PEANUT (Arachis) BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1  PEPPER (Capsicum) ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1		
INADEQUATE SPECIMEN, NO DISEASE  NUTRITIONAL - IRON DEFICIENCY 1 ROOT ROT - RHIZOCTONIA 1 VIRUS - PEA MOSAIC - UNKNOWN 1  PEANUT (Arachis)  BLIGHT - BOTRYTIS 1 INSECT INJURY - SCLEROTINIA 1  PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - SCANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	0	1
NUTRITIONAL ROOT ROT ROOT ROT ROOT ROT RHIZOCTONIA ROOT ROT RHIZOCTONIA RHIZOCTONIA REPEA MOSAIC LUNKNOWN REPEANUT (Arachis) RIGHT STEM BLIGHT STEM BL	0	2
ROOT ROT - RHIZOCTONIA 1 VIRUS - PEA MOSAIC 1 - UNKNOWN 1  PEANUT (Arachis)  BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1  PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	-	3
VIRUS - PEA MOSAIC 1 - UNKNOWN 1  PEANUT (Arachis)  BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1  PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	0	1
PEANUT (Arachis)  BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1  PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	0	1
PEANUT (Arachis)  BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1  PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	0	1 1
BLIGHT - BOTRYTIS 1 INSECT INJURY 1 STEM BLIGHT - SCLEROTINIA 1  PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	O	1
INSECT INJURY STEM BLIGHT - SCLEROTINIA  PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1		
PEPPER (Capsicum)  ANTHRACNOSE  BACTERIAL LEAF SPOT  BACTERIAL SPOT  BACTERIAL SPOT  CHEMICAL INJURY  - SCLEROTINIA  - SCLEROTINIA  - COLLETOTRICHUM  5  - ERWINIA  1  - XANTHOMONAS  25  BLOSSOM END ROT  - CA DEFICIENCY/DRY  1  CHEMICAL INJURY  - GROWTH REGULATOR  3  - HERBICIDE  1	0	1
PEPPER (Capsicum)  ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	0	1 1
ANTHRACNOSE - COLLETOTRICHUM 5 BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	U	1
BACTERIAL LEAF SPOT - ERWINIA 1 BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1		
BACTERIAL SPOT - XANTHOMONAS 25 BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	0	5
BLOSSOM END ROT - CA DEFICIENCY/DRY 1 CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	0	1
CHEMICAL INJURY - GROWTH REGULATOR 3 - HERBICIDE 1	2	27
- HERBICIDE 1	0	1
	0	3
	0	1
- UNKNOWN 2 ENVIRONMENTAL STRESSES 7	0	2 7
FRUIT SPOT - UNKNOWN 1	0	1
GRAY MOLD - BOTRYTIS 3	0	3
INADEQUATE SPECIMEN, NO DISEASE 28	-	28
INSECT INJURY 3	1	$\overline{4}$
LEAF ROLL - PHYSIOLOGICAL 0	1	1
LEAF SPOT - FUNGAL 1	0	1
ROOT ROT - RHIZOCTONIA 1	0	1
SOUTHERN BLIGHT - ATHELIA 2	0	2
STEM ROT - BOTRYTIS 1	2	3
- SCLEROTINIA 4	0	4
VIRUS - TOMATO SPOTTED WILT 2	0	2
- UNKNOWN 3 WILT - PHYTOPHTHORA 1	0	3

CROP	DIAGNOSIS	CAUSAL AGENT	#I° DIAGs	#2 DIAGs	TOTAL
POTATO (	(Solanum)				
	CK LEG	- ERWINIA	5	0	5
HOLI	LOW HEART	- ENVIRONMENTAL	2	0	2
INAD	EQUATE SPECIMEN, NO I	DISEASE	4	-	4
	CT INJURY		1	0	1
	RNAL BROWN SPOT	- HEAT/DROUGHT	1	0	1
	Γ KNOT NEMATODE	- MELOIDOGYNE	1	0	1
SCAB		- STREPTOMYCES	1	0	1
VIRU	S	- UNKNOWN	1	0	1
PUMPKIN	- see listing under CUCURBIT	TS .			
RADISH - s	see listing under CRUCIFERS				
RHUBARE					
CROV	WN ROT	- FUNGAL	1	0	1
		- PHYTOPHTHORA	1	0	1
	RONMENTAL	- WET FEET	1	0	1
NOD	ISEASE		1	-	1
SQUASH -	see listing under CUCURBITS	3			
	OTATO (Ipomoea)				
ENVI	RONMENTAL	- GROWTH CRACK	1	0	1
0.07.77	_	- STRESS	1	0	1
SCUR	F	- MONILOCHAETE	2	0	2
	(Lycopersicon)				
	HRACNOSE	- COLLETOTRICHUM	1	0	1
	TERIAL CANKER	- CLAVIBACTER	3	0	3
	TERIAL SPECK TERIAL SPOT	- PSEUDOMONAS - XANTHOMONAS	1 2	0	1 2
	SSOM END ROT	- CA DEFICIENCY/DRY	$rac{2}{4}$	0	$\frac{2}{4}$
	CCHY RIPENING	- CA DEFICIENC I/DKI - PHYSIOLOGICAL	1	0	1
	KEYE ROT	- PHYTOPHTHORA	5	0	5
	ACING	- ENVIRONMENTAL	3	1	4
	MICAL INJURY	- BURN	1	0	1
	- 3 -	- GROWTH REGULATOR	4	0	4
		- HERBICIDE	3	0	3
		- UNKNOWN	3	0	3
CULT	TURAL	- OVERWATERING	1	1	2
		- POOR LIGHT	0	1	1
	Y BLIGHT	- ALTERNARIA	21	1	22
	RONMENTAL STRESSES	TTD10.5	11	3	14
	ΓROT	- FUNGAL	1	0	1
	WALL	- PHYSIOLOGICAL	1	0	1
	EQUATE SPECIMEN, NO I	JISEASE	63	- 4	63
	CT INJURY	LINIUNIONAL	3 2	4	7
	RNAL WHITE TISSUE BLIGHT	- UNKNOWN - PHYTOPHTHORA	2 5	0	2 5
LAIF	DLIGITI	- PHYTOPHTHORA - STEMPHYLIUM	J	U	J

CROP	DIAGNOSIS	CAUSAL AGENT	#1° DIAGs	#2 DIAGs	TOTAL
TOMATO	(cont)				
	MOLD	- CLADOSPORIUM	1	0	1
LEAF		- PHYSIOLOGICAL	3	1	4
LEAF	SPOT	- SEPTORIA	5	0	5
NAIL	HEAD SPOT	- ALTERNARIA	1	0	1
NUTR	ITIONAL	- FERTILIZER BURN	2	0	2
		- GENERAL	4	1	5
		- MAGNESIUM DEFICIENCY	1	0	1
		- MANGANESE DEFICIENCY	2	0	2
		- N DEFICIENCY	3	0	3
		- POTASSIUM DEFICIENCY	1	1	2
PHYSI	IOLOGICAL	- UNKNOWN	1	0	1
POLL	INATION PROBLEM	- UNKNOWN	0	1	1
ROOT	KNOT NEMATODE	- MELOIDOGYNE	1	0	1
ROOT	STEM ROT	- RHIZOCTONIA	1	0	1
STEM	ROT	- SCLEROTINIA	8	0	8
UNKN	IOWN		1	-	1
VIRUS	3	- TOMATO SPOTTED WILT	9	0	9
		- UNKNOWN	1	0	1
WALN	NUT WILT	- JUGLONE	6	0	6
WILT		- FUSARIUM	4	0	4
ZIPPE	RING	- ENVIRONMENTAL	1	1	2
TURNIP - s	ee listing under CRUCIFERS				
WATERMI	ELON - see listing under CUC	EURBITS			
TOTALS			8378	533	8911

