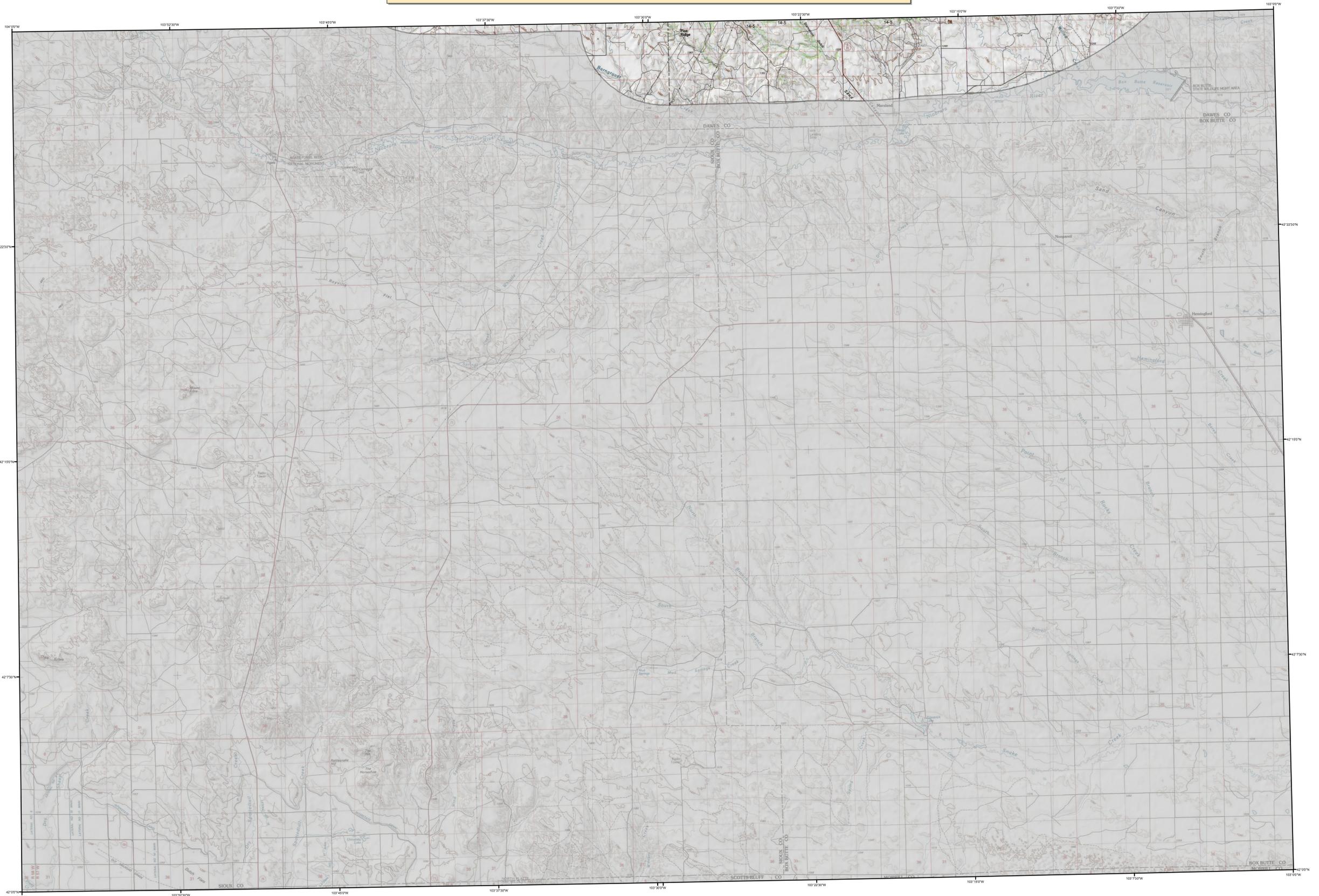


2013 Aerial Insect and Disease Survey HEMINGFORD, NEBRASKA USGS 100K TOPO!: 42103-A1



1:100,000

Code	Causal Agent	Primary Host	Code	Causal Agent	Primary Host	Code	Causal Agent	Primary Host
1	Douglas fir beetle	Douglas fir	59	Wetbeetle	Lodgepole Pine	106	So squirrel flapping	Cottonwood Poplar
2	Engelmann spruce beetle	Engelmann spruce	60	White pine blister rust	Lodgepole Pine	107	fall webworm	Cottonwood Poplar
3	Blue spruce saw	Blue spruce	61	Dwarf mistletoe	White Pine	108	road salt	Softwoods
4	Mountain pine beetle	Ponderosa Pine	62	White pine sawfly	White Pine	109	pine wood nematode	Scotch Pine
5	Mountain pine beetle	Lodgepole Pine	63	White pine sawfly	Ponderosa Pine	110	oak wilt	Oak
6	Mountain pine beetle	White Pine	64	White pine sawfly	White Pine	111	shot hole disease	All Tree Species
7	Mountain pine beetle	Ponderosa Pine	65	White pine sawfly	White Pine	112	spruce ips	White Spruce
8	Western pine beetle	White Pine	66	White pine sawfly	Oak	113	bedford chestnut borer	Oak
9	Pine engraver	White Pine	67	White pine sawfly	Oak	114	anthracnose like leaf disease	Bur Oak
10	Douglas fir engraver beetle	Douglas fir	68	White pine sawfly	Softwoods	115	Dieback	All Tree Species
11	Western balsam bark beetle	Subalpine Fir	69	White pine sawfly	Softwoods	116	Mortality	All Tree Species
12	Unidentified bark beetle	Softwoods	70	White pine sawfly	Softwoods	117	Discoloration	All Tree Species
13	Pine engraver	Lodgepole Pine	71	White pine sawfly	Softwoods	118	Herbicide	All Tree Species
14	Pine engraver	Ponderosa Pine	72	White pine sawfly	Softwoods	119	Flagging	All Tree Species
15	Ponderosa pine needle miner	Lodgepole Pine	73	White pine sawfly	Softwoods	120	aspens tortrix	Quaking Aspen
16	Lodgepole pine needle miner	Ponderosa Pine	74	White pine sawfly	Softwoods	121	Mortality (old cottonwood)	Quaking Aspen
17	Jack pine budworm	Jack Pine	75	White pine sawfly	Softwoods	122	Mortality (eastern cedar)	Eastern Red Cedar
18	Spruce budworm, light defol.	Douglas fir	76	White pine sawfly	Softwoods	123	Mortality (hardwood)	Hardwoods
19	Spruce budworm, medium defol.	Douglas fir	77	White pine sawfly	Softwoods	124	Discoloration (eastern cedar)	Eastern Red Cedar
20	Spruce budworm, heavy defol.	Douglas fir	78	White pine sawfly	Softwoods	125	Discoloration (oak)	Oak
21	Douglas fir tussock moth	Douglas fir	79	White pine sawfly	Softwoods	126	Discoloration (spruce)	Spruce
22	Pine butterfly	Ponderosa Pine	80	White pine sawfly	Softwoods	127	Herbicide (cottonwood)	Cottonwood Poplar
23	Pine looper	Ponderosa Pine	81	White pine sawfly	Softwoods	128	Herbicide (eastern cedar)	Eastern Red Cedar
24	Pine looper	Ponderosa Pine	82	White pine sawfly	Softwoods	129	Flagging (hardwood)	Hardwoods
25	Pine tortrix	Hardwoods	83	White pine sawfly	Softwoods	130	Mortality (spruce)	Hardwoods
26	Text caterpillars	Hardwoods	84	White pine sawfly	Softwoods	131	Discoloration (eastern cedar)	Eastern Red Cedar
27	Leaf beetles	Hardwoods	85	White pine sawfly	Softwoods	132	Discoloration (oak)	Oak
28	Aspen defoliation	Quaking Aspen	86	White pine sawfly	Softwoods	133	High water damage	Softwoods
29	Oak leaf roller	Hardwoods	87	White pine sawfly	Softwoods	134	Discoloration (cottonwood)	Cottonwood Poplar
30	Pine needle-needle miner	Ponderosa Pine	88	White pine sawfly	Softwoods	135	Discoloration (eastern cedar)	Eastern Red Cedar
31	Pine sawflies	Ponderosa Pine	89	White pine sawfly	Softwoods	136	Discoloration (hardwood)	Hardwoods
32	Pine tussock moth	Ponderosa Pine	90	White pine sawfly	Softwoods	137	Discoloration (oak)	Oak
33	Cankers/rot	Hardwoods	91	White pine sawfly	Softwoods	138	Discoloration (spruce)	Spruce
34	Variable oak leaf caterpillar	Hardwoods	92	White pine sawfly	Softwoods	139	Herbicide (cottonwood)	Cottonwood Poplar
35	Unidentified defoliator	All Tree Species	93	White pine sawfly	Softwoods	140	Herbicide (eastern cedar)	Eastern Red Cedar
36	Cottonwood Decline/Mortality	Softwoods	94	White pine sawfly	Softwoods	141	Flagging (hardwood)	Hardwoods
37	Heterobasidion annosum (Fomes annosus)	Softwoods	95	White pine sawfly	Softwoods	142	Mortality (spruce)	Hardwoods
38	Armillaria ostroyae (Armillaria mellea)	Softwoods	96	White pine sawfly	Softwoods	143	Discoloration (eastern cedar)	Eastern Red Cedar
39	Phomopsis	Softwoods	97	White pine sawfly	Softwoods	144	Discoloration (oak)	Oak
40	Cytospora	All Tree Species	98	White pine sawfly	Softwoods	145	Discoloration (spruce)	Spruce
41	Western gall rust	Unknown	99	White pine sawfly	Softwoods	146	Herbicide (cottonwood)	Cottonwood Poplar
42	Comandra rust	Unknown	100	White pine sawfly	Softwoods	147	Herbicide (eastern cedar)	Eastern Red Cedar
			101	White pine sawfly	Softwoods	148	Flagging (hardwood)	Hardwoods
			102	White pine sawfly	Softwoods	149	Discoloration (eastern cedar)	Eastern Red Cedar
			103	White pine sawfly	Softwoods	150	Discoloration (oak)	Oak
			104	White pine sawfly	Softwoods	151	Discoloration (spruce)	Spruce
			105	White pine sawfly	Softwoods	152	Herbicide (cottonwood)	Cottonwood Poplar
			106	White pine sawfly	Softwoods	153	Herbicide (eastern cedar)	Eastern Red Cedar
			107	White pine sawfly	Softwoods	154	Flagging (hardwood)	Hardwoods
			108	White pine sawfly	Softwoods	155	Mortality (spruce)	Hardwoods
			109	White pine sawfly	Softwoods	156	Discoloration (eastern cedar)	Eastern Red Cedar
			110	White pine sawfly	Softwoods	157	Discoloration (oak)	Oak
			111	White pine sawfly	Softwoods	158	Discoloration (spruce)	Spruce
			112	White pine sawfly	Softwoods	159	Herbicide (cottonwood)	Cottonwood Poplar
			113	White pine sawfly	Softwoods	160	Herbicide (eastern cedar)	Eastern Red Cedar
			114	White pine sawfly	Softwoods	161	Flagging (hardwood)	Hardwoods
			115	White pine sawfly	Softwoods	162	Mortality (spruce)	Hardwoods
			116	White pine sawfly	Softwoods	163	Discoloration (eastern cedar)	Eastern Red Cedar
			117	White pine sawfly	Softwoods	164	Discoloration (oak)	Oak
			118	White pine sawfly	Softwoods	165	Discoloration (spruce)	Spruce
			119	White pine sawfly	Softwoods	166	Herbicide (cottonwood)	Cottonwood Poplar
			120	White pine sawfly	Softwoods	167	Herbicide (eastern cedar)	Eastern Red Cedar
			121	White pine sawfly	Softwoods	168	Flagging (hardwood)	Hardwoods
			122	White pine sawfly	Softwoods	169	Mortality (spruce)	Hardwoods
			123	White pine sawfly	Softwoods	170	Discoloration (eastern cedar)	Eastern Red Cedar
			124	White pine sawfly	Softwoods	171	Discoloration (oak)	Oak
			125	White pine sawfly	Softwoods	172	Discoloration (spruce)	Spruce
			126	White pine sawfly	Softwoods	173	Herbicide (cottonwood)	Cottonwood Poplar
			127	White pine sawfly	Softwoods	174	Herbicide (eastern cedar)	Eastern Red Cedar
			128	White pine sawfly	Softwoods	175	Flagging (hardwood)	Hardwoods
			129	White pine sawfly	Softwoods	176	Mortality (spruce)	Hardwoods
			130	White pine sawfly	Softwoods	177	Discoloration (eastern cedar)	Eastern Red Cedar
			131	White pine sawfly	Softwoods	178	Discoloration (oak)	Oak
			132	White pine sawfly	Softwoods	179	Discoloration (spruce)	Spruce
			133	White pine sawfly	Softwoods	180	Herbicide (cottonwood)	Cottonwood Poplar
			134	White pine sawfly	Softwoods	181	Herbicide (eastern cedar)	Eastern Red Cedar
			135	White pine sawfly	Softwoods	182	Flagging (hardwood)	Hardwoods
			136	White pine sawfly	Softwoods	183	Mortality (spruce)	Hardwoods
			137	White pine sawfly	Softwoods	184	Discoloration (eastern cedar)	Eastern Red Cedar
			138	White pine sawfly	Softwoods	185	Discoloration (oak)	Oak
			139	White pine sawfly	Softwoods	186	Discoloration (spruce)	Spruce
			140	White pine sawfly	Softwoods	187	Herbicide (cottonwood)	Cottonwood Poplar
			141	White pine sawfly	Softwoods	188	Herbicide (eastern cedar)	Eastern Red Cedar
			142	White pine sawfly	Softwoods	189	Flagging (hardwood)	Hardwoods
			143	White pine sawfly	Softwoods	190	Mortality (spruce)	Hardwoods
			144	White pine sawfly	Softwoods	191	Discoloration (eastern cedar)	Eastern Red Cedar
			145	White pine sawfly	Softwoods	192	Discoloration (oak)	Oak
			146	White pine sawfly	Softwoods	193	Discoloration (spruce)	Spruce
			147	White pine sawfly	Softwoods	194	Herbicide (cottonwood)	Cottonwood Poplar
			148	White pine sawfly	Softwoods	195	Herbicide (eastern cedar)	Eastern Red Cedar
			149	White pine sawfly	Softwoods	196	Flagging (hardwood)	Hardwoods
			150	White pine sawfly	Softwoods	197	Mortality (spruce)	Hardwoods
			151	White pine sawfly	Softwoods	198	Discoloration (eastern cedar)	Eastern Red Cedar
			152	White pine sawfly	Softwoods	199	Discoloration (oak)	Oak
			153	White pine sawfly	Softwoods	200	Discoloration (spruce)	Spruce
			154	White pine sawfly	Softwoods	201	Herbicide (cottonwood)	Cottonwood Poplar
			155	White pine sawfly	Softwoods	202	Herbicide (eastern cedar)	Eastern Red Cedar
			156	White pine sawfly	Softwoods	203	Flagging (hardwood)	Hardwoods
			157	White pine sawfly	Softwoods	204	Mortality (spruce)	Hardwoods
			158	White pine sawfly	Softwoods	205	Discoloration (eastern cedar)	Eastern Red Cedar
			159	White pine sawfly	Softwoods	206	Discoloration (oak)	Oak
			160	White pine sawfly	Softwoods	207	Discoloration (spruce)	Spruce
			161	White pine sawfly	Softwoods	208	Herbicide (cottonwood)	Cottonwood Poplar
			162	White pine sawfly	Softwoods	209	Herbicide (eastern cedar)	Eastern Red Cedar
			163	White pine sawfly	Softwoods	210	Flagging (hardwood)	Hardwoods
			164	White pine sawfly	Softwoods	211	Mortality (spruce)	Hardwoods
			165	White pine sawfly	Softwoods	212	Discoloration (eastern cedar)	Eastern Red Cedar
			166	White pine sawfly	Softwoods	213	Discoloration (oak)	Oak
			167	White pine sawfly	Softwoods	214	Discoloration (spruce)	Spruce
			168	White pine sawfly	Softwoods	215	Herbicide (cottonwood)	Cottonwood Poplar
			169	White pine sawfly	Softwoods	216	Herbicide (eastern cedar)	Eastern Red Cedar
			170	White pine sawfly	Softwoods	217	Flagging (hardwood)	Hardwoods
			171	White pine sawfly	Softwoods	218	Mortality (spruce)	Hardwoods
			172	White pine sawfly	Softwoods	219	Discoloration (eastern cedar)	Eastern Red Cedar
			173	White pine sawfly	Softwoods	220	Discoloration (oak)	Oak
			174	White pine sawfly	Softwoods	221	Discoloration (spruce)	Spruce
			175	White pine sawfly	Softwoods	222	Herbicide (cottonwood)	Cottonwood Poplar
			176	White pine sawfly	Softwoods	223	Herbicide (eastern cedar)	Eastern Red Cedar
			177	White pine sawfly	Softwoods	224	Flagging (hardwood)	Hardwoods
			178	White pine sawfly	Softwoods	225	Mortality (spruce)	Hardwoods
			179	White pine sawfly	Softwoods	226	Discoloration (eastern cedar)	Eastern Red Cedar
			180	White pine sawfly	Softwoods	227	Discoloration (oak)	Oak
			181	White pine sawfly	Softwoods	228	Discoloration (spruce)	Spruce
			182	White pine sawfly	Softwoods	229	Herbicide (cottonwood)	Cottonwood Poplar
			183	White pine sawfly	Softwoods	230	Herbicide (eastern cedar)	Eastern Red Cedar
			184	White pine sawfly	Softwoods	231	Flagging (hardwood)	Hardwoods
			185	White pine sawfly	Softwoods	232	Mortality (spruce)	Hardwoods
			186	White pine sawfly	Softwoods	233	Discoloration (eastern cedar)	Eastern Red Cedar
			187	White pine sawfly	Softwoods	234	Discoloration (oak)	Oak
			188	White pine sawfly	Softwoods	235	Discoloration (spruce)	Spruce
			189	White pine sawfly	Softwoods	236	Herbicide (cottonwood)	Cottonwood Poplar
			190	White pine sawfly	Softwoods	237	Herbicide (eastern cedar)	Eastern Red Cedar
			191	White pine sawfly	Softwoods	238	Flagging (hardwood)	Hardwoods
			192	White pine sawfly	Softwoods	239	Mortality (spruce)	Hardwoods
			193	White pine sawfly	Softwoods	240	Discoloration (eastern cedar)	Eastern Red Cedar
			194	White pine sawfly	Softwoods	241	Discoloration (oak)	Oak
			195	White pine sawfly	Softwoods	242	Discoloration (spruce)	Spruce
			196	White pine sawfly	Softwoods	243	Herbicide (cottonwood)	Cottonwood Poplar
			197	White pine sawfly	Softwoods	244	Herbicide (eastern cedar)	Eastern Red Cedar
			198	White pine sawfly	Softwoods	245	Flagging (hardwood)	Hardwoods
			199	White pine sawfly	Softwoods	246	Mortality (spruce)	Hardwoods
			200	White pine sawfly	Softwoods	247	Discoloration (eastern cedar)	Eastern Red Cedar
			201	White pine sawfly	Softwoods	248	Discoloration (oak)	Oak
			202	White pine sawfly	Softwoods	249	Discoloration (spruce)	Spruce
			203	White pine sawfly	Softwoods	250	Herbicide (cottonwood)	Cottonwood Poplar
			204	White pine sawfly	Softwoods	251	Herbicide (eastern cedar)	Eastern Red Cedar
			205	White pine sawfly	Softwoods	252	Flagging (hardwood)	Hardwoods
			206	White pine sawfly	Softwoods	253	Mortality (spruce)	Hard