Title of project: Christmas Tree IPM Practices - Survey

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Abstract: A survey of NY Christmas Tree growers was conducted to learn about current cultural and pest management practices. Over 150 growers responded to a series of questions regarding tree species grown, types of marketing, pest problems, management approaches, information and training sources and educational/extension/research needs. The data indicated a number of opportunities for the NYSIPM program to have a significant role in making positive impacts for this industry.

Justification: Christmas Tree growers represent a significant portion of the ornamental nursery industry in NY served by the NYSIPM Ornamentals Team. Data on pest management issues and practices will be used to set future research and extension priorities for programming and facilitate impact measurement.

Objectives: To gather baseline data on various aspects of Christmas tree IPM in NY and aid in the selection of research projects and educational activities.

Procedures: A survey instrument based on the Greenhouse IPM Practices survey of 2000 was modified by the project leaders to fit the specifics of Christmas tree production and pest management. The National Agricultural Statistics Service (NASS) NY office was contracted to carry out the survey. Surveys were mailed to over 250 NY growers with follow-up phone calls made to those who did not respond initially. Over 150 growers completed the survey either through the mail or telephone interviews. Project leaders summarized the survey results from the raw data supplied by NASS. This summary will be analyzed and results used by the NYSIPM Ornamentals team to guide future activities. Results will also be published in the Ornamentals Team eNewsletter.

Results: Blue spruce (*Picea glauca*) was the most commonly grown species with nearly 50% of growers reporting over 1 acre in production. Douglas fir (*Pseudotsuga menziesii*), Balsam fir (*Abies balsamea*) and Fraser fir (*Abies fraseri*) were next with about 40% of growers reporting over 1 acre of each species. Of the pests, weeds (both annual grasses – 65% and perennial weeds – 60%) were most common though only the perennial weeds were considered difficult to deal with (46% reported them as difficult vs only 18% said annual grasses were difficult). The leading disease was needlecast(s) of Douglas fir (65% with 70% of those considering it difficult). Spider mites and white pine weevil led the arthropod pests (40% and 35% respectively reported as common) though neither was considered particularly difficult to manage (27% and 32% respectively). Space availability was the leading factor in choosing a replanting site (65%) and only 33% test for fertility prior to planting. Few growers have an irrigation system (78% have none). Symptoms and environmental conditions were the primary indicators used for deciding to apply fungicides (40% each) with the calendar and GDD next (20% each). Lab diagnosis was rare (3%). Insect presence (44%), GDD (22%) and the calendar (19%) were the primary indictors used to trigger insecticide use. Lab diagnosis was again rare (1%). Of the non-herbicide weed management techniques, mowing between the rows was by far the most common with 90%. Over 85% scout regularly, most often the owner/grower (95%) when in the field for other reasons

(68%). Only 45% record their scouting results. About 69% get their pest management information from Cornell CCE. The internet, pesticide sales reps and other growers were each used about 17%. Only 34% have Cornell's Guidelines to the Pest Management of Trees and Shrubs. 42% attend Industry conferences while 29% attend CCE programs. Disease/Insect and weed ID led the "What would you like to learn more about?" category with 58% followed by IPM (53%).

Implications: Weed management leads the way as the most common pest situation that growers deal with. Though they report them as not being especially difficult to manage they do expend a great deal of time (mowing etc) and material (herbicides) so research and education on alternatives have the potential to make a positive impact on reducing the economic and environmental risks of current practices. Despite having the most common and difficult to manage disease, Douglas fir is the second most common species grown. Programming to address needlecasts seems called for. Trainings in Disease/Insect/Weed ID and on IPM through both CCE and Industry conferences and workshops should have a ready audience.