

## **Development of On-line and Print Versions of the Cornell Guidelines for: Integrated Field Crop Management; Pest Management Guidelines for Commercial Turf; and Commercial Production and Maintenance of Trees and Shrubs**

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### **Commodity Guide Collaborators:**

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Cornell Cooperative Extension (CCE) publishes a series of agronomic and horticultural guidelines to help individuals optimize production and pest management decisions regarding crops, commodities, and landscape grown in New York State. Currently CCE publishes guides for: greenhouse florist crops, grapes, commercial turfgrass, berry crops, commercial tree-fruit production, commercial production and maintenance of trees and shrubs, vegetables, wildlife, herbaceous perennials, pest management around the home, horses, poultry, dairy cattle, sheep, goats and swine. Of these publications, most are revised and updated annually. Providing CCE clientele with the best crop production and pest management information in a user friendly and timely manner is important to enhancing outreach efficiency, educational impacts, user net profitability and environmental protection.

These grower oriented “guides”, formerly titled “Cornell Recommends”, have been published for many years as print copies. With the advent, growth, and explosion in popularity of the world wide web some Cornell commodities have begun to enhance their outreach to clientele by using this new internet media. (For example see: Cornell Vegetable Guidelines at: <http://www.nysaes.cornell.edu/recommends/>).

In mid 2002, the field crops extension program began to explore the goal of making the information in the Cornell Guide for Integrated Field Crop Management more generally available to clientele by using Internet technology.

About the same time the NYS IPM Program received some additional funding from state legislators to support IPM special projects. In May 2002, a portion of these monies were made available to pursue the web development project and hire a web publishing expert with experience in desk top publishing, software and website development, and database management.

The objective of the project was to create web versions of the Cornell guides from the print versions. To begin the development of the on-line Cornell Guide to Integrated Field Crop Management soft copies of the print versions were obtained from Cornell Media Services, the publisher of the guide series. The digital text and graphic files were converted from pagemaker, \_\_\_\_\_, \_\_\_\_\_ and converted into Microsoft Office components MS Word, MS Excell, and \_\_\_\_\_

files to enhance ease of manipulation and compatibility with the software suite used by or familiar to Cornell field crop extension authors. Those items not easily converted, such as line drawings, were scanned and inserted into MS Word text files.

Two other commodity groups were added to the web development project: Pest Management Guidelines for Commercial Turf and Pest Management Guidelines for Commercial Production and Maintenance of Trees and Shrubs. (When?2003?)

As progress was being made on web site development it was realized that the web files would have to be updated each year with the new print files. The legacy method of editing the Guide used hard copy changes to create a new PageMaker file that was then used to print the updated Guide. The PageMaker file was only available to the graphic designers and was not useful in creating a web site.

About the same time that this process began the Cornell Media Services program underwent a re-organization and downsizing. This opened up an opportunity to consider and evaluate options to streamline the guide development process using the digital files being created for the web development and creation of an infrastructure that allowed more involvement and direct input from guide authors using collaborative software. To enhance efficiencies of creating multiple guides, a database management component was explored to allow common resources such as pesticide labels and support material to be shared between guides,

After much thought it was decided to create the Guidelines using MS Word as the software editing tool. Most people have MS Word on their computer and Word can be used in combination with Excel, the web, and other database tools. The Guidelines have now been moved to a digital environment where various software programs on different platforms actually talk to each other. The goal was to empower the authors to take control of their content and to create a single set of source files for use on various types of media like print, the web, or on CD. The information could be continuously updated and available as print on demand or on the web.

### **Engaging authors in the guide development process:**

The Microsoft "Sharepoint" system was used to collect information from authors with responsibilities to contribute technical information to guides. The digital version of the guide was posted to the sharepoint site, broken into individual chapters and sections. A mechanism was created to document an audit trail to identify who provided source files and other materials and when. Individual sections were password protected with access limited to those with responsibilities for individual section(s). Authors downloaded their sections onto their computers, worked in their additions, changes, and revisions, and reposted their file to the sharepoint website, The sharepoint software allowed transparency in the development process so authors to share their sections with each other.

Using this system a Master document was created for the Guideline. The master document is composed of the chapters and sections that make up the document. Within the document

chapters, sections and subsections are identified using MS word formatting and the table of contents created automatically.

The first level subsections of the Guidelines are extremely important. They exist as individual documents and they are the basis of display for the web pages. They are also the means to track authorship and maintain an audit or review procedure. Once a subsection is done, it can be approved, edited and placed in its chapter and then placed on the web.

In addition to working on formatting the master document, efforts were made to put the 2005 files online. The method used to create the files for the subsections prepares the files for use on the web, as well as providing the potential for the guide to be saved to a CD Rom. Once a file is created, it can be saved to the Master document and saved to the website at the same time.

Each section of the Guide stands on its own and can be individually printed, bound, captured on CD, and put on the web. Each subsection of each major chapter can also be separately printed and bound or served on the web.

Although Cornell guides are printed for distribution on a calendar schedule this new approach to guide development allows authors more access and control over the information they supply that make up the Guidelines. Authors may make updates and revisions between printings and new information becomes available during the year. These revisions are posted to the web version of the guide for immediate distribution.

The 2005 Cornell Guide for Integrated Field Crop Management was the first publication to go through this development process and served to provide experimentation, insights, templates, and structure to the development of subsequent guides. The process used, the process followed, training provided to authors, and lessons learned will allow for easier revisions, and opportunities for enhancements. The process has provided some cost savings for guide development which may help support future guide and web enhancements to increase outreach and educational impacts.

**Progress to date:**

The 2005 Cornell Guide for Integrated Field Crop Management was released October 26, 2004. The guide is available through the Cornell Resource Center And can be found on the web at: [www.fieldcrops.org](http://www.fieldcrops.org).

The 2005 Cornell Pest Management Guidelines for Commercial Turf was released January 24, 2005. The soft copy currently available as a PDF at <http://www.cuturfgrass.org/> (indexed and searchable). A full HTML version of this Guideline with additional resources will be available in February of 2005.

The 2005 Cornell Guide for Commercial Production and Maintenance of Trees and Shrubs Trees and Shrubs? Target Date?

Cornell Guides available from: The Resource Center  
Cornell University, PO Box 3884, Ithaca, NY 14850-3884  
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