

# Conference for Food Protection Committee FINAL Report

**COMMITTEE NAME:** Wild Harvested Mushrooms Committee

**COUNCIL (I, II, or III):** Council I

**DATE OF REPORT:** December 5, 2011

**SUBMITTED BY:** Chris Gordon and Lisa Roy

**COMMITTEE CHARGE(s):** *The Conference recommends that the Council consider forming a committee to continue discussion of this issue and that the following language and attachments for consideration to be placed on the CFP website as guidance listing steps that states can use to develop and implement a wild harvested mushroom program for their state. The charges will be:*

- (1) Develop guidelines to help regulators address the issue of wild mushrooms in food establishments*
- (2) Report back at the 2012 CFP.*
- (3) The name of the committee will be Wild Harvested Mushrooms Committee.*

## **COMMITTEE ACTIVITIES AND RECOMMENDATIONS:**

- The Wild Harvested Mushroom committee was given a broad charge to 'develop guidelines to help regulators address the issue of wild mushrooms in food establishments'. However when considered in the context of the preceding paragraph, it became clear that our mission was to provide viable resources and practical options for regulatory agencies to cope with this growing problem.

Our committee proposes five important elements of a model program that regulatory agencies can use to regulate wild harvested mushrooms at retail and foodservice establishments as follows:

- 1. Replace 'wild mushroom identification expert' term with 'approved identifier',*
- 2. Developing resources & criteria to select wild mushroom species for service or sale,*
- 3. Establish record-keeping and traceability to assure safety of wild harvested mushrooms,*
- 4. Develop a wild harvested mushroom curriculum to train 'approved identifiers', and*
- 5. Create an exam so that approved identifiers can demonstrate their competence identifying different species of mushrooms.*

This model program will permit a variety of wild harvested mushrooms to be sold to and by these facilities. Mushroom species vary from state to state and region to region. This model provides a method for regulatory agencies to create a species list for mushrooms approved for sale. This model also provides a basis for regulatory agencies to collaborate with colleges, universities and/or mycological organizations to approve wild mushroom identifiers. Perhaps most importantly, our model provides a mechanism that regulatory agencies can use, in the event of a foodborne illness outbreak related to wild harvested mushrooms, whereby effective public health interventions including traceback and recall can be quickly and efficiently initiated.

- 1. Replace 'wild mushroom identification expert' term with 'approved identifier'.** The Committee recommends that the Food and Drug Administration remove the term 'approved mushroom identification expert' from the Food Code as it appears in § 3-201.16 and replace it with 'approved identifier', as defined below, that more specifically clarifies the meaning.  
***Approved Identifier:*** *One who has successfully completed a required course on identification of selected species of harvested mushrooms, the appropriate harvest, storage and preparation of those species, and who has demonstrated competence by passing an exam acceptable to the Regulatory Authority.*

**2. Developing resources & criteria to select wild mushroom species for service or sale.**

Jurisdictions may choose to form a jurisdictional committee to determine which fresh, wild harvested mushroom species are appropriate for commercial harvest in their state. Representatives from the following groups may be considered for membership:

- Regulatory agencies from departments that oversee restaurants, markets and farmers' markets;
- Local Poison Centers;
- Local mycological organizations;
- Restaurant Associations;
- College or university personnel who are competent identifiers of wild mushrooms;
- Commercial wild mushroom foragers;
- Wild Mushroom Brokers;
- Chefs who serve fresh wild harvested mushrooms

**Criteria to Select Wild Mushroom Species.** Individual states may use the following criteria to establish a list of wild mushroom species for harvest and sale to the public. Wild mushrooms on the approved list for an **approved identifier** may be sold to or by a food establishment. Wild Mushroom Species that are:

- currently in commerce according to foragers, chefs and dealers in the jurisdiction;
- easily identified with field characteristics as determined by the jurisdiction;
- common, in a specific jurisdiction as determined by the committee;
- generally considered a low allergic reaction risk as determined by the committee;
- consideration may be given for wild mushrooms approved for sale in other states (to be imported from those states), if accompanied by appropriate records

**3. Establish record-keeping and traceability to assure safety of wild harvested mushrooms.**

In order to assure traceability, the responsibility of the **approved identifier** must be delineated. Therefore each batch of mushrooms obtained from a wild mushroom approved identifier must be accompanied by a tag or label and include the following information:

1. Approved identifier name
2. Address & phone number
3. Latin binomial name and locally used common name
4. Harvest date
5. Harvest location (town, county, township, etc)
6. Harvest weight
7. Name of forager if not harvested by an approved identifier

The responsibility of foodservice establishments and retail stores is also taken into account and all foodservice establishments and retail or wholesale stores that receive wild harvested mushrooms should retain the wild harvested mushroom tag or label and make them available, upon request by the regulatory authority. The wild harvested mushroom tags are to remain attached to the container in which the wild harvested mushrooms were received until the container is empty. The tags are to be retained for at least sixty (60) calendar days from the date the container is emptied as illness may take up to two weeks to present, two more weeks for diagnosis, and up to thirty days for epidemiological investigation and traceback. Commingling of wild harvested mushroom lots is not recommended as it serves to confound traceback investigations and hinder efforts to remove implicated product from the food chain.

4. **Develop a wild harvested mushroom curriculum to train approved identifiers.** This is to be developed and administered by the jurisdictional committee. The curriculum should include general information about the following:
- Mushroom anatomy as it relates to identification;
  - Mushroom toxins and case histories of poisonings;
  - Specific information regarding habitat, including information on areas that are considered inappropriate for harvest (treated areas, brownfields, etc.);
  - Proper collection, including information on proper harvesting and species conservation techniques ;
  - Information on areas where harvesting is not permitted, or permitted only with permission.

The curriculum should also include specific information about the approved species including:

- Latin binomial and approved common name;
- Specific characteristics required for proper identification, including differentiating characteristics of similar toxic and non-toxic species;
- Characteristics for determining that (if) the mushroom is in good condition;
- Information about proper storage;
- Information about proper preparation;
- Information about regulations that the harvester must comply with.

5. **Create an exam so that approved identifiers can demonstrate their competence identifying different species of mushrooms.** This is to be developed and administered by individuals who have demonstrated competence as (an) educators and are competent in the field identification of wild harvested mushroom species in their jurisdiction, as verified by a mycological association or other educational institution. The Regulatory Authority may choose to have the exam designed by a psychometrician or standardized by a third party authority. If these are not deemed reasonable, the Regulatory Authority may use another technique to ensure that the exam is legally defensible.

The exam should test individuals on the information in the curriculum with special emphasis on species identification. Use of photos is highly recommended. In some cases it may be appropriate to include a lab practicum with fresh samples of the approved species and their similar species to test identification skills. The passing score is to be determined by the Regulatory Authority. For the purposes of this recommendation, the **trainer** is defined as an individual who has demonstrated competence as an educator, competence in the field identification of wild mushroom species, and whose competence has been verified by a mycological association or educational institution recognized by the regulatory agency. Examples of organizations are North American Mycological Association (NAMA), Cooperative Extensions, Mycological Society of America, local or regional mycological associations, schools, colleges and universities. An advanced degree in Mycology does not necessarily qualify an individual as an approved trainer in the field identification of mushroom species.

6. **The Wild Harvested Mushroom Committee also recommends the committee be re-created** and charged to continue to working to “develop guidelines to help regulators address the issue of wild mushrooms in food establishments”.
- Committee to work with FDA to develop issues to be placed in FDA Food Code.
  - Committee to work on combining issues that are placed on CFP website into one document.
  - Refine educational curriculum and exam components.
  - Report back to CFP in 2014.

## REQUESTED ACTION:

- The Wild Harvested Mushroom Committee will submit seven (7) issues at the Conference based on the recommendation of the committee.
  - Issue 1: Report-Wild Harvested Mushroom Committee
    - The issue will request the committee's report be acknowledged and that committee members be thanked.
    - Content Document: Wild Harvested Mushroom Committee Final Report
    - Supporting Attachments:
      - Wild Harvested Mushroom Committee List
      - CDC MMWR wild mushrooms report 2011
      - Food Safety News—California wild mushroom statement
      - New Hampshire statement on wild mushrooms
      - Washington Post article on consumption
  - Issue 2: Redefine 'approved mushroom identification expert' with **approved identifier**
    - Provides replacement term and definition for existing language
  - Issue 3: Resources and Criteria to Select Species of Wild Harvested Mushrooms
    - Outlines options that regulatory authorities can use to work with stakeholders to identify safe sources of wild harvested mushrooms
  - Issue 4: Wild Harvested Mushroom Recordkeeping and Traceability
    - Outlines options that regulatory authority and industry can use to maintain records of wild harvested mushrooms and respond in the event of illness or outbreak
  - Issue 5: Wild Harvested Mushroom Curriculum
    - Outlines minimum curriculum requirements for training approved identifiers
  - Issue 6: Wild Harvested Mushroom Exam
    - Outlines process for developing minimum exam contents for demonstration of knowledge
  - Issue 7: Re-create Wild Harvested Mushroom Committee
    - Outlines charges to develop guidelines to help regulators address the issue of wild mushrooms in food establishments
  
- Additionally, the committee would like to recognize all its members and thank them for their services:

Frederick Angulo  
US CDC  
Chamblee, GA

Robert Brown  
Whole Foods Market  
Austin, TX

Christine Cox  
Montana Dept. of HHS  
Helena, MT

Kevin Dreesman  
Illinois Dept. of Health  
Springfield, IL

Chris Gordon  
Virginia Dept. of Health  
Richmond, VA

Andrew Harris  
Summit County Health District  
Stow, OH

Katey Kennedy  
US FDA  
Portland, OR

Michaeline Mulvey  
Maine Task Force-Foragers  
Augusta, ME

Terrance Powell  
Los Angeles Dept. of Public Health  
Baldwin Park, CA

Lisa Roy  
Maine CDC Inspections  
Augusta, ME

Thomas Schwarz  
Int'l. Flight Services Assoc.  
Burke, VA

Richard Vergili  
Culinary Institute of America  
Hyde Park, NY

Lisa Whitlock  
US FDA  
Oakland, CA

**COMMITTEE MEMBER ROSTER:**

- The member roster is presented as an attachment to this report.