

CHAPTER 2

SAMPLING

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2.1 REPRESENTATIVE SAMPLE

Obtaining a representative sample from a lot of hop is an important and essential part of hop inspection. If the sample is not representative, the inspector's final determination will not reflect the true quality of the lot. In order for a sample to be considered representative, it must be:

- a. Obtained by official personnel in accordance with official procedures;
- b. Obtained using FGIS approved equipment - the core sampler is the only equipment approved by FGIS for sampling hop;
- c. Of the prescribed size; and
- d. Handled securely and protected from manipulation, substitution, and careless handling.

2.2 DETAILED WORK RECORDS

- a. The accurate recording of the lot's identity and its condition at the time of sampling is essential to the correct certification of the lot's quality. If the condition is not reported on the sample ticket, the lot could be inadvertently misgraded. This is why samplers must record all unusual conditions and other pertinent information on the sample ticket.
- b. Sample tickets shall contain the following information:
 - (1) The sampler's signature or initials.
 - (2) The date the sample is obtained.
 - (3) The location of the lot of hop at the time of sampling. If the city or state in which the sampling took place is not obvious, this shall be shown.
 - (4) Full identification of the lot. This shall include the grower number and lot number.
 - (5) The number of bales in the lot.

- (6) Any other pertinent information that may affect the inspection or certification of the lot.

2.3 LOT ACCESSIBILITY

The entire lot should be completely and safely accessible. If a lot is not completely accessible for sampling, dismiss the request for service or, at the applicant's request, sample that portion of the lot that is accessible and issue a "partial inspection" certificate.

2.4 LOT IDENTIFICATION

Each lot of hop tendered for lot inspection must be identified by the grower's lot number or other lot number or symbol stenciled on each bale.

- a. Adequate identification for inspection purposes consists of not less than three alphanumeric characters (symbols, digits, or letters or any combination thereof).
- b. Identifying marks should be stamped, in ink, in a conspicuous place on the bale, and should be in characters approximately 2 inches high. Chalked numbers or symbols are not considered adequate identification. When consecutive numbering of the bales in a lot are a part of the identification, these numbers must be in ink.
- c. There must be no duplication of identifying marks on two or more lots tendered for inspection. A lot may consist of any number of bales of the same or similar type and quality which are properly identified and tendered as a unit for sampling, inspection, and certification.
- d. Care should be taken to ensure that the proper identification information is recorded. Official personnel must obtain identification information personally. Do not transcribe the information from the application or other documents supplied by the applicant or others.

2.5 SAMPLE HANDLING AND SECURITY

- a. A representative sample shall never be out of the control or observation of the sampler. Special care shall always be taken to protect samples from manipulation, substitution, and improper handling. There are many ways in

- b. which a sample may lose its representativeness. For example, a sample shall no longer be considered representative if it is:
 - (1) Spilled, no matter how little is lost or how much could be recovered.
 - (2) Stored in an improper manner or in an area not under the control of official inspection personnel. When samples are not analyzed on the same day they are obtained, store them in a cool, dry place to prevent any change in condition.
 - (3) Transported by means which do not ensure the integrity of the sample.
- c. Official samples may be shipped via U.S. mail or commercial parcel service, provided that the samples are delivered directly to official personnel and all other necessary security precautions are taken. Such precautions may include enclosing the sample bag in a mail bag secured by a metal seal, if warranted.

2.6 SAMPLING PROCEDURES

Obtain core samples from an appropriate number of randomly selected bales in the lot.

- a. Determine the number of bales in the lot.
- b. Determine the minimum number of bales from which core samples need to be drawn.
 - (1) If the lot contains less than 6 bales, select all the bales in the lot and draw one core sample from each bale. If the lot is of such size (e.g., one or two bales) that one core sample from each selected bale will not yield enough sample to perform all requested analyses, then two or more core samples may be drawn from each bale.
 - (2) If the lot contains from 6 to 60 bales, select at least 6 bales in the lot and draw one core sample from each selected bale.
 - (3) If the lot contains more than 60 bales, select at least 10 percent of the bales in the lot; e.g., if the lot size is 250 bales, select no less than 25 bales in the lot and draw one core sample from each selected bale.
- c. Take the sample from the side of each selected bale as follows:

- (1) When a point is selected for sampling, cut and spread the hop cloth to permit the core sampler to enter the hops.
 - (2) Thrust the sampler into the hops with a slight rotary motion.
 - (3) When the sampler is withdrawn from the hops, carefully empty the sample into an approved container.
 - (4) Mark the identity of the lot from which the sample was drawn on the sample container.
 - (5) Close the bale opening by sewing or by another appropriate method.
- d. During or immediately after sampling a lot, stencil on the "head" of all bales in the lot: "Federal-State Inspection."

NOTE: Keep all core samples separate. In some cases, the core samples delivered to the laboratory at the close of the day represent only part of the lot. Store these part-lot samples so that they remain representative of the entire lot.