

parameters identified by experts in the field; and sampling protocols currently used by the European Union.

Record evidence stated that each lot sample for inshell and kernel pistachio aflatoxin testing must be made up of a prescribed number of incremental samples. Incremental sampling would be accomplished with an automatic sampling device or with a sampling probe.

Witnesses explained that automatic samplers are devices that extract random samples from a stream of pistachios while the nuts are processed

in the handler's plant. Sampling probes are tubes, with 5 to 10 ports, that are pushed down into bins of bulk pistachios. The probe extracts pistachios from the bin at different levels of the bin ensuring that a cross sample of the pistachios in the bin are taken for testing and facilitates the collection of the required incremental samples. Probing devices are widely used in the sampling of other food products with similar physical characteristics.

According to record evidence, the number of incremental samples and the total weight of the lot sample would be

dependent on the size of the lot. As shown in the table below, a small lot of inshell pistachios weighing 220 pounds or less would require 10 incremental samples, resulting in a total lot sample weighing 3 kilograms. For a larger lot of inshell pistachios weighing 22,001 pounds to 150,000 pounds, a lot sample of 30 kilograms would consist of 100 incremental samples. As discussed later, the total lot sample would then be divided into three test samples. The fourth column of the table shows the weight of each of the test samples.

INSHELL PISTACHIO LOT SAMPLING INCREMENTS FOR AFLATOXIN CERTIFICATION

Lot weight (lbs.)	Number of incremental samples for the lot sample	Total weight of lot sample (kilograms)	Weight of test sample (kilograms)
220 or less	10	3.0	1.0
221–440	15	4.5	1.5
441–1100	20	6.0	2.0
1101–2200	30	9.0	3.0
2201–4400	40	12.0	4.0
4401–11,000	60	18.0	6.0
11,001–22,000	80	24.0	8.0
22,001–150,000	100	30.0	10.0

For aflatoxin testing of pistachio kernels, the proposed incremental sampling requirements would follow the same methodology. The number of incremental samples would depend on the size of the lot, and would equal the number required for inshell lots of pistachios. However, the lot samples for

kernel testing would be half the weight of the lot samples for inshell pistachio testing. This is because, as the record shows, half of the weight of inshell pistachios is made up of the shell, and only the kernels are tested for aflatoxin.

According to the below table, a lot sample for a lot of 220 pounds or less

of kernels would equal 1.5 kilograms and consist of 10 incremental samples. A lot sample for a lot of 22,001 pounds to 150,000 pounds of kernels would equal 15 kilograms and would consist of 100 incremental samples.

PISTACHIO KERNEL LOT SAMPLING INCREMENTS FOR AFLATOXIN CERTIFICATION

Lot weight (lbs.)	Number of incremental samples for the lot sample	Total weight of lot sample (kilograms)	Weight of test sample (kilograms)
220 or less	10	1.5	.5
220–440	15	2.3	.75
441–1100	20	3.0	1.0
1101–2200	30	4.5	1.5
2201–4400	40	6.0	2.0
4401–11,000	60	9.0	3.0
11,001–22,000	80	12.0	4.0
22,001–150,000	100	15.0	5.0

The above tables provide for lot sizes up to 150,000 pounds. The record shows that this reflects current industry practice. That is, handlers do not handle lots in excess of that amount. However, in the event that these practices change, proposed section 983.46 would allow the proposed sampling methodology to accommodate the change. Any change in sampling procedures would require a recommendation of the committee and approval of the Department. Proposed § 983.46 is discussed further under

“Modification or suspension of regulations.”

The record evidence is that the next step in the sampling process should be that the lot samples for inshell and kernel aflatoxin testing be divided into 3 equal test samples. The dividing of the lot sample would be conducted by, or under the supervision of, an inspector with the Federal or Federal-State Inspection Service (Inspection Service). Witnesses testified that any inspection process in use by the Inspection Service should be available to pistachio

handlers under the proposed order. Inspection programs that could be used include the “Partners In Quality” program and the “Customer Assisted Inspection Program.”

Aflatoxin Testing Procedures

As provided in § 983.38(d)(2), lot samples intended for aflatoxin testing and certification would be submitted to a laboratory that has been approved or accredited for aflatoxin analysis by the USDA. Witnesses explained that such a laboratory could be a third-party