

# IDFL NEWS

Issue No. 5

September-December 1994

## Content Analysis

The **Content Analysis** or **Composition** test is the most important down & feather test. Government agencies around the world use this test to check compliance with government labeling requirements.

### Brief Explanation of Testing Procedure.

- Place a well-mixed sample of 4 grams down (6 grams feathers) in a special separating cabinet.
- Separate material into the following components:
  - Down & Fiber
  - Waterfowl Feathers
  - Chopped/Damaged Feathers
  - Quill Feathers
  - Landfowl Feathers
  - Residue
- Complete a second separation of 0.2 grams of Down/Fiber into the following components:
  - Down Clusters
  - Down Fiber
  - Feather Fiber
- Weigh components and calculate percent of each.

## Common Content Testing Problems

- Sample not representative.** In large lots multiple bales should be sampled and mixed.
- Sample not properly mixed.** Sample must be well-mixed before drawing 4g test.
- Poor brushing technique.**
- Plumules.** Plumules are feather-like structures having down-like qualities. Most should be classified as down.
- Fibers.** Fiber separation should be double-checked.

Feathers must be carefully brushed to remove loose down fiber and residue.

## Government Standards for Down Content

Many different standards exist. The USA Federal Trade Commission (FTC) requires the following for **DOWN** products.

Down, plumules & Down Fiber .....	Minimum	80%
Down cluster portion.....	Minimum	70%
Remaining material restricted to		
Landfowl feathers .....	Maximum	2%
Chopped/Damaged feathers .....	Maximum	2%
Residue .....	Maximum	2%
Quill Feathers .....	None	

<u>Location</u>	<u>Labeled as</u>	<u>Min. Down Down Fiber</u>	<u>Minimum Down Portion</u>
Canada	Down	75%	75% **
Europe	Down	90%	81%
Europe	3/4 Down	30%	27%
Europe	1/2 Down	15%	13.5%
Japan	80/20 Down	75%	75% **
Japan	50/50 Down	45%	45% **
USA	80/20 Down	64%	56%
USA	50/50 Down	40%	35%
USA	10/90 Down	8%	7%

\*\* Fibers standards calculated in non-down portion

6. **Balance.** An accurate well-maintained balance is critical for these small weights.
7. **Broken/Damaged Feathers.** How should slightly damaged feathers be classified?

## "Filler" Problems in Recent Raw Material Shipment.

IDFL has received many inquiries recently about problems with raw feather/down shipments to the United States.

USA feather processors report extraordinarily heavy material resulting in large wash losses.

To help identify this problem IDFL is performing a "FILLER MATERIAL TEST" comprising three parts.

1. Visual inspection.
2. Net wash loss.
3. Chemical element test on residue resulting from rinse of raw material.

The chemical element test helps identify materials which may be dusted on feathers to increase weight.

## Classification of Damaged Feathers.

The classification of damaged feathers varies from country to country and laboratory to laboratory.

The USA currently has a standard of 2% maximum chopped & damaged feathers. This standard was written with down products in mind. In a down product **10% of the feather weight** can be

chopped and damaged. In a 5% down 95% feather product only **2% of the feather weight** can be chopped and damaged. Several entities have requested a change to this FTC rule.

The International Down and Feather Bureau in Frankfurt, Germany has initiated a damaged feather study. Various damaged feather samples will be analyzed to determine a standard definition of a damaged feather. A benchmark for normal percent damaged in various feather sources can also be calculated.

## Tolerance Follow-up

Our recent discussions of testing tolerances have invited comments from our clients.

### *Government Label Tolerance vs. Testing Tolerances (Variances).*

The government label tolerance is designed to give manufacturers a minimum level for a specific statement on a label. For example a down product must contain a minimum of 80% down.

A testing tolerance describes the margin of error to be expected on when testing material. This is especially critical in down and feather material which is not homogeneous.

### *Possible Testing Tolerances*

Currently, the testing tolerance for content analysis is  $\pm 2.5\%$ . (as defined by the IDFB).

IDFL recommends that Fill Power and Specie Identification include a testing tolerance of at least  $\pm 5\%$ .

This means a 600 test result for Fill Power means a range of 570 - 630.

In future newsletters we will discuss possible tolerances for other test procedures.

## Current Trends and Problems

IDFL tests materials from many different sources. We notice from time to time common problems in samples received for testing.

### *Specie Problems.*

IDFL continues to notice many samples with specie problems. Samples label goose must contain a minimum of 90% goose plumage.

If this requirement cannot be met, the material could be labeled simply "**DOWN**".

## IDFB Technical Manual Orders.

This Technical manual is jointly published by IDFL and IDFB. It contains IDFB procedures and color reference photos. The manual is still available for \$200. Please send orders to IDFL at the address listed below.

*The IDFL staff wish each of our clients and friends a prosperous*

*and happy* ★★

1995 ★★

*International Down and Feather  
Testing Laboratory  
1455 South 1100 East  
Salt Lake City, UT 84105 USA*

*Tel: (801) 467-7611  
Fax: (801) 467-7711*