

Appendix D

Animal Bedding

Table of Contents

	Page
Green Products Company	D3
Harlan Laboratories – Bedding Packaging for Research Applications	D7
Shepherd Specialty Paper (SSP).....	D10

THIS PAGE INTENTIONALLY LEFT BLANK

Green Products Company

16902 290th Street
PO Box 756
Conrad, IA 50621 USA

Gregg Sharp

800 247-7807 ext. 1230
641-366-2001
FAX 641-366-2366
gregg@greenproducts.com

January 23, 2010

Lisa Warfield
Weights & Measures, Coordinator
NIST, Weights & Measures Division
100 Bureau Drive
Gaithersburg, MD 20899-2600

Dear Ms. Warfield:

Re: Proposed Amendment for Handbook 130, Method of Sale, Section 2.23 – Animal Bedding

Green Products Company is a processor of corncobs that are used as a bedding material for the laboratory animal research industry. We fully support adopting the amendment which would allow us to continue selling on the basis of weight.

All of the end-users identified in the amendment clearly fall under the definition of "Non-consumer" as defined in HB 130, Packaging & Labeling Regulations, Section 2.3 on page 60 and so there is no grey area regarding to whom the amendment is applicable. Additionally, all laboratory animal research entities are subject to stringent standards and monitoring by industry accrediting agencies and that further delineates the market.

The industry's practice of buying corncob bedding on the basis of weight stretches over several decades. Those who buy and specify lab animal bedding products are well educated and sophisticated. Of the few processors and marketers of corncob bedding, only one processor packages by volume and that is a relatively recent change from their past practice.

The absorptive capacity is the most important physical characteristic used to evaluate lab beddings. Bulk density is a measure of weight for a given volume and usually expressed in terms of pounds per cubic foot. Corncob bedding with a heavier bulk density will always absorb more than lighter density bedding. As a processor of corncobs, we purchase all of our raw materials on the basis of weight. When selling by volume, there is great economic incentive for the processor to process lighter density raw materials because it takes less weight to fill the given volume, yet it is the heavier density raw materials that have greater absorptive capacity, and that is what the end-user wants.

Checking the net contents of packaged goods is relatively easy for small units whether packaged by weight or volume. However, the industry trend is to utilize 1,000 lb. bulk bags. It would be possible to weigh a bulk bag, but it is difficult to imagine a practical method for checking the net contents of a bulk bag containing 35 – 40 cubic feet of corncob bedding.

L. Warfield
Weights & Measures
1/23/10 page 2

Because of that, the bulk bag portion of the industry will simply be unregulated because there is no way for a curious end-user to check the contents.

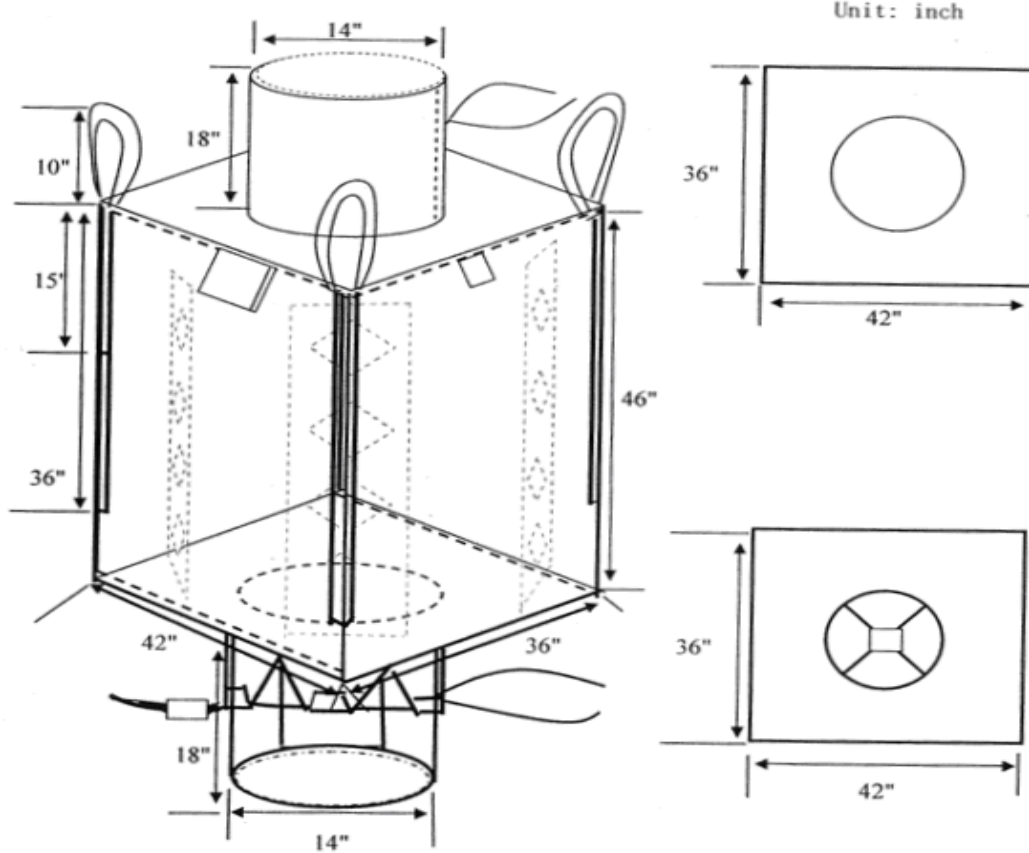
When listening to those who would like to influence the committee's decision, you should consider whether the individual or entity is a processor/manufacturer, a distributor, or end-user of the bedding. A processor will benefit from volumetric method of sale by packaging lighter density material which is less absorbent and that is to the detriment of the end-user. Although Green Products Company is a processor, we support Harlan Laboratories. Harlan is successful in the lab industry, not because they are loyal to their supplier, but because they are fully committed to serving the needs and best interests of their customers. It is the end-user who benefits from weight as the method of sale.

Sincerely,

Gregg Sharp
Sales Manager
Green Products Company

PS Line drawings of bulk bags and photos are included with this.

Model: IGP-46 (36"x42"x46") 4-Panel Baffle Design



Unit: inch

Description

Size	36" x 42" x 46"	Printing	No
SWL, SF	2000 lbs 5:1	Document Pouch	1 - 12x12 Ziplock
PP Fabric	6.0 oz. Coated, White	PE Liner	No
Top	14"D x 18"L, ½" Tie Spout	Sift-Proof	No
Bottom	14"D x 18"L, ½" Tie Spout; Star Closure, Rope Tube		
Lifting Loop	Vertically Sewn Lifting Loops Height: 10", Sewing down: 15" & 36"		





Harlan Laboratories

Bedding Packaging for Research Applications

All Animal Bedding Materials Are Not Created Equally

TERRY BURNS-HEFFNER
Teklad National Sales Manager
May 4, 2009




Bedding Materials for the Biomedical Research Community

All products sold directly to commercial end-users, on an international basis.

Harlan Laboratories

The Market

The International Biomedical Research Community

Customers such as:

- Government Institutions (NIH, NCI, FDA, USDA, DOD)
- Pharmaceutical Firms (Merck, Pfizer, Schering, Wyeth)
- Contract Toxicology Labs (Covance, Battelle, Wil Research)
- Medical Schools (Johns Hopkins, Harvard, Wash U.)
- Biotech Firms (Amgen, MedImmune, Genentech)
- Large Commercial Breeders (Harlan, Charles River, Jackson)




Harlan Laboratories 3

THE MARKET: Part 2

THE CUSTOMERS IN THIS SEGMENT ARE:

- > **LARGE USERS** Most often buying full pallets
Some by in Bulk, Some buy full trucks
Mechanized Materials Handling
Some use robotics technology
- > **VERY DEMANDING** Rigid Specs for Product Quality
- > **HIGHLY REGULATED** NIH, USDA, AAALAC, GLP's



Harlan Laboratories 4

Harlan, as a part of this Industry

1. is a Manufacturer of both Diets and some Beddings (*not* cobs)
2. sells manufactured items (diets & some beddings) and re-sells other manufacturer's bedding items direct to commercial end users
3. is also one of the largest Commercial End Users
4. sells, re-sells and purchases on an International basis
5. products are *not* sold in retail stores

Therefore, we come to you with both a manufacturer as well as a customer/end user perspective .




Harlan Laboratories 5

"All Bedding Materials are not created equally"

Wide Variety of Materials & Characteristics

- **Wood Chips** (*cubes of wood from saw cuts*)
- **Corncobs** (*granular, 1/4" or 1/8" particles*)
- **Paper** (*Loose Pulp*)
- **Paper "chips"** (*diced, rigid squares of alpha cellulose*)
- **Paper Pellets**
- **Cob Pellets**
- **Wood Pellets**
- **Wood Shavings** (*not commonly used in research – variables*)

(NOTE: The vast majority of these items are still packaged & sold by weight)



Harlan Laboratories 6

CHARACTERISTICS:

- VERY DRY: (typically 6 to 10% moisture or less)
 - Maximize Absorbency
 - Minimize Mold/Contaminants
 - NIH Specifications
 - Regulated & Controlled Indoor Storage Requirements (USDA, NIH Guidebook, AAALAC, FDA GLP's)
- MOISTURE:** Is a bad thing, and not tolerated. *Low* Moisture is critical for proper product performance, and to meet client specifications & expectations
(This is not mulch, peat moss or top soil)
- * Some materials are compressible, but most are not

The Issue

In meetings with NIST leaders, it was discovered that the spirit and intent of the current statute was to control packaging of materials such as mulch, peat moss & top soil. These materials, when packed by weight, can vary widely in terms of weight. Significant moisture loss can occur during shipment & storage. Such products can also be "spiked" with moisture to increase weight.

Animal Bedding is not plant bedding or soil, and as demonstrated earlier, in this particular market segment, moisture is an undesirable characteristic that is very tightly controlled and regulated. Most beddings used by clients in this segment are also not compressible, due mainly to the need for "flowability" in high-throughput facilities.

Further, for most bedding materials, raw materials & other input costs are purchased and calculated in terms of weight, freight is calculated in terms of weight, and so selling price is determined using weight. For value comparison purposes, clients either request or require pricing on bids & contracts in terms of weight.

NIH SPECIFICATIONS

(NIH Spec: NIH-13-119)

3.2 Processing: When delivered, the bedding shall contain at least 8% but not more than 10% moisture...

3.3 Form: Specifications on particle distribution and dust content or fines. (US Standard Sieve Tests/specs are also given here)

5.1 Packaging: Bedding shall be packaged in 40 Lb. (+/- 1 lb.) bags

The NIH Bid specifications also require that all bedding items be bid by weight, in terms of pounds, to allow for proper value comparison

Accuracy in Filling Bags

(NON-Compressible Materials)

By Weight

- Precise
- Alarmed/controlled
- Easily Verifiable (both by manufacturer and client)
- Complies with NIH Bid Specifications
- Preferred by most clients in large bids/Industry Standard

By Volume

- Estimated by flow rates for filling bulk totes (or weight?)
- Less precise than weight, involves estimations
- Not as readily verifiable (especially larger packages)
- Does not comply with NIH bid requirements and strays from Industry Standards

FACTORS IN DETERMINING HOW MUCH BEDDING MATERIAL TO PUT INTO A CAGE ("Enough")

First thing that must be done, per application, is determine the proper amount of material, by weight, to put into a cage. Absorbency is calculated in terms of a % of weight (Example: "Absorbs 130% of its weight in liquids")

Determined by:

- > Type of Caging: IVC, Static, Enclosed Isolator, Other
- > Species & Population of Cage
- > Temp., Humidity & Air Changes: At cage level & at room level
- > Desired Interval Between Cage Changes
- > Weight, or "Amount of Absorbent Material", is the final determining factor, *not Volume* (Rice Krispies vs. Grape Nuts)

These and other factors will often be different within a given facility

BULK TOTES: A Customer's Perspective

When is this full?



How would I verify?



Accurate Weight is Required for Shipping

Domestic Haulers

- An accurate weight per truckload or container must be calculated for every shipment, truck or rail
- Packing by weight makes calculations easy for the shipper, and is easily verified by the hauler

Overseas Containers

- Same hold true for overseas containers, and clients prefer packaging by weight, which allows for more rapid/accurate verification
- Carriers must have the weight on Bill of Lading to comply with maximum weight laws

Similar Materials Sold by Weight

Wood Pellets for Wood Stoves are sold by the pound (40 & 50 pound bags) and/or by the Ton

Stone & Gravel sold by weight, either by the bag or by the ton

Summary:

- Most bedding materials used in this industry are not compressible, and have therefore historically been packaged & sold by weight
- Moisture loss during storage, and risk of moisture "spiking" are not issues due to the low starting moisture
- Low moisture is vital to proper product performance, and is also tightly controlled & regulated by both the NIH, the USDA, and through bid specifications of many other larger end users
- Research Standards require strict and controlled indoor storage conditions to maintain the integrity of bedding products prior to use
- Packing by weight is more precise and much more easily verifiable, both by the manufacturer, and by the customer
- Packing by weight is specified by most government bids, and is preferred by most Purchasing Agents for ease & accuracy of value comparison

Summary (continued)

- In terms of shipping, weight, not volume is required for calculating accurate weights for billing of freight (which is traditionally billed "per ton"), and in meeting legal truck and highway federal weight requirements. Weight is also required on all Bills of Lading
- For a Manufacturer: Verification by volume is less precise and more difficult when it comes to larger packages (such as bulk totes)
- For an End User: Verification by volume is not as easy for smaller packages, and nearly impossible (and labor-intensive) on larger packages that hold from 500 to 1000 lbs. of material
- There are non-consumer provisions for many other commodities regulated by the NIST and Weights & Measures Divisions. Non-compressible bedding materials for the biomedical research community (which is clearly non-retail) should be covered by one of these non-consumer provisions.

Thank You!



SHEPHERD | SPECIALTY PAPERS

Date: January 22, 2010

To: Don Onwiler,
Executive Director
National Institute of Standards and Technology

First let me introduce myself, I am Michael Schoonover, Vice President of Shepherd Specialty Papers. I am a Civil Engineer by degree, and have 30 years experience working in the paper business.

Shepherd Specialty Papers (SSP) is a distributor and manufacture of primarily paper products used mostly in the animal research industry. We also purchase, sell and distribute a full line of animal bedding products including Cobs. SSP is a leader in a number of these products and has been in this business since 1980. For more information on SSP visit www.ssponline.com.

We not only agree with the proposed changes to section 2.23 in HB130, but feel they are a requirement if this stature applies to the animal research industry.

Our primary product is a Paper Pulp Chip, a small square of pure pulp fibers, which the research industry uses as contact bedding. We manufacture this same product for sale into other markets including the construction and food industries, and in all cases we sell by weight. This is the measurement that most directly relates to the effective use of the product, the amount of fiber included. In the research industry, this dictates moisture absorption and consistency. There is really no consistent or fair way to package or sell this product by volume.

SSP also purchases and sells a full line of alternative animal bedding materials, the majority of which are sold to us and we in turn sell by weight. This has been the accepted standard in this industry and is the basis of most government, industry, and public bids that are issued. For each different product, specific guidelines are included to address moisture, packaging, particle sizing and distribution and other things that standardize the weight among suppliers and laboratories. It is these specifications that determine or clarify whether weight, volume or piece is the selling method. A key aspect of this sales arrangement is verification and repeatability. For our Paper Pulp Chip this is clearly weight, for other products weight is a key component in this industry as it normally correlates to the product's absorption capability.

We have reviewed the Harlan presentation materials presented in May 2009 and agree with and can confirm all arguments presented for this change. SSP believes that our Paper Pulp Dice product has even stronger arguments, which we can present if the committee desires.

In summary, section 2.3 applied to bedding used in the animal research industry needs to be updated to include the option of selling by weight as proposed in the amendment before this committee.

Thank you for your time and consideration,

Michael Schoonover
Vice President Operations