

ALPHA-dri[®]

vs.

Corncob

Use ALPHA-dri[®] right out of the bag

ALPHA-dri[®]

Non-Abrasive & Soft

Made from soft fluff pulp paper that is comfortable and non-abrasive

Favored By Mice & Rats

In cages with a mix of ALPHA-dri[®] (AD) & corncob, mice separate the paper from corncob

Mold Never Detected

Therefore no mycotoxin content due to strict manufacturing process of AD which inhibits mold growth

No Pathogenic Bacteria

See figure 1 on the back

No Endocrine Disruptors

Routine testing of all AD raw material documents that endocrine disruptor compounds are not present

No Sleep Disruption

AD is a more comfortable bedding which leads to better sleep

High Absorption Rates

AD is 3 times more absorbent than cob and is able to dry out quickly and reabsorb in IVC's

Traceable

The contents of every bag can be traced to a specific lot of raw material through a strict QA process

Corncob

Abrasive & Hard

Used in the deburring and polishing process of metal due to the abrasive nature

Unfavored By Mice & Rats

In cages with a mix of AD & corncob, paper is separated from the Corncob

High Bioload: Neither Mycotoxins Nor Endotoxins Are Removed Via Autoclaving or Irradiation

Corncob's porous nature allows for higher concentration of bacteria. When the gram-negative bacteria are killed, Endotoxins are generated ³

Contains Endocrine Disruptors

Zearalenone and Leukotoxins are estrogenic mycotoxins that have endocrine disrupting effects and are found in corncob ^{5,6}

Sleep Disruption

Rodents on corncob bedding had a decreased slow-wave sleep time ²

Low Absorption Rates

Corncob absorbs slowly from the bottom up, often leaving saturated bedding stuck to cage bottoms

No Traceability

Harvested material, such as corncobs is stored outdoors in exposed piles for up to a year and beyond and this does not allow for accurate traceability



Figure 1.

Corn Cob: Non-Autoclaved

Bedding Type	Fluid Culture	Results
Corn Cob (1)	Positive	Many organisms (TNTC) Several Bacillus sp. Staphylococcus sp. Aspergillus sp. (many colonies) <i>Sphingomonas paucimobilis</i> <i>Actinetobacter haemolyticus</i> <i>Pseudomonas fluorescens</i>
Corn Cob (2)	Positive	Same as above
Corn Cob (3)	Positive	Same as above

Results

Below are the results for the internal bacterial and fungal analysis on the bedding samples (CFU = colony forming units):

Alpha Cellulose: Non-Autoclaved

Bedding Type	Fluid Culture	Results
Alpha cellulose (1)	Negative	No bacterial / fungal growth observed
Alpha cellulose (2)	Positive	Staphylococcus sp. (2 CFU) / Aspergillus sp. (1 colony)
Alpha cellulose (3)	Negative	No bacterial / fungal growth observed

In the study above conducted by Bristol-Myers Squibb, they compared non-autoclaved corncob bedding to non-autoclaved ALPHA-dri bedding. ALPHA-dri straight out of the bag over 3 tests had only 1 colony forming unit. Corncob had several colonies varying in pathogenicity.

Figure 2: A Model For Diseases Potentially Associated with Bacteria/Endotoxin ⁴

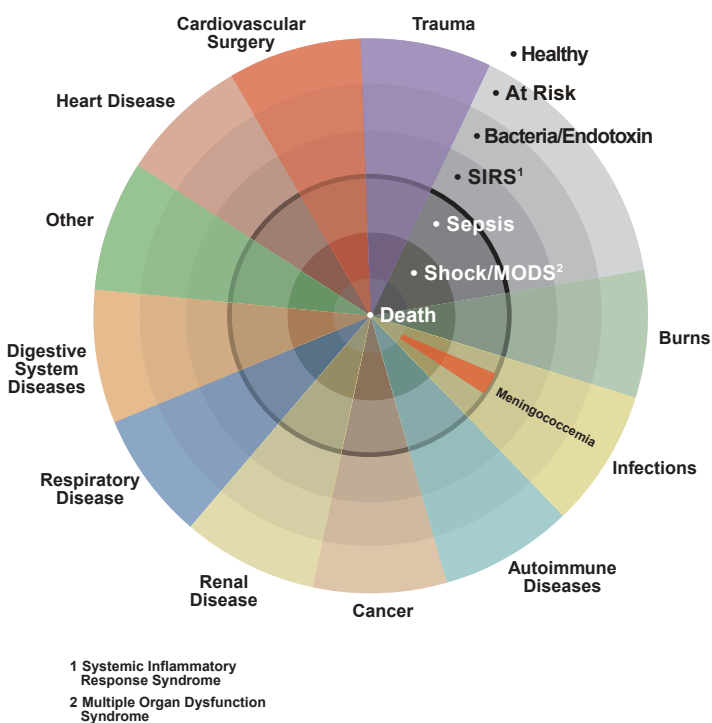
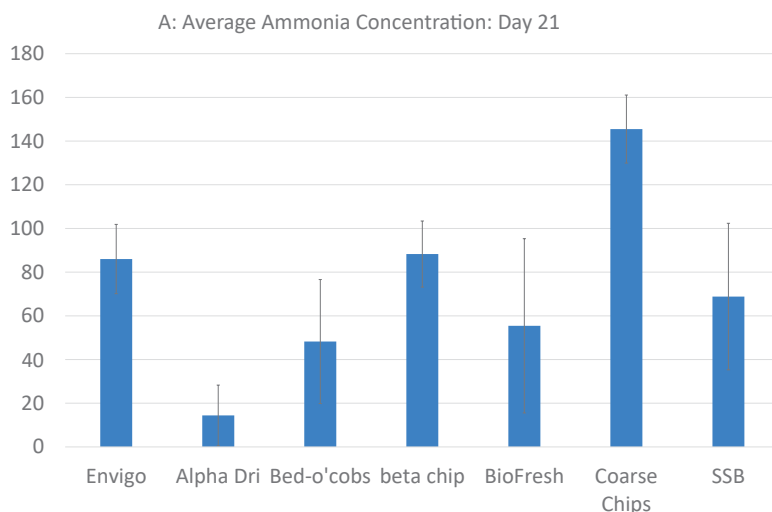


Figure 3: Performance of Various Bedding Types in a Novel IVC Design ⁷



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