

Delmarva Bedding Update

Bud Malone
University of Delaware

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NCC Bedding Survey

- ❖ Regional shortages from Mid-Atlantic to Southeast to South.
- ❖ Short- and long-term issues influencing shortages.
- ❖ Expect situation only to get worse!
 - Decrease availability
 - Higher cost
 - Poor quality

Periodic Shortages Due To:

- ❖ Seasonal demand by poultry
- ❖ Housing market
- ❖ Temporary disruption of supplies
 - Weather
 - Mill repairs



Long-Term Bedding Issues!

- ❖ Milling technology
- ❖ Trade issues and markets for loblolly pine
- ❖ Competing uses:
 - Particle board
 - Energy for mills, industry and homes
 - Carrier for pesticide (peanut hulls)



Regional Bedding Issues!

- ❖ Changing land ownership (urbanization, conservation groups, land use, land prices)
- ❖ Energy
- ❖ Horses
- ❖ Landscape/horticulture
- ❖ Plus on DMV high timber prices and limited supply to support existing mills=

Delmarva Mill Closures



- ❖ Closure of 4 of 8 mills past 5 years
- ❖ Loss 70% of pine milling capacity

Regional Projections

- ◆ Slight increase in pine harvest on Delmarva but not mill output (more efficient milling)
- ◆ Expect continued competing uses but balance offset by new industry or closure of existing industries (ie. pulpwood/chips)
- ◆ Bedding supply issues/opportunities by state:
 - MD: stable to slight decrease
 - DE: decrease
 - PA & WV: slight increase in residues if export market develops
 - NJ: potential source of pine fiber if reprocessed into bedding

Dan Rider, MD DNR

Managing With Shortages

- ◆ Reduce cleanouts =health/performance issues
- ◆ Reduce placement depth = dry bedding with intensive management
- ◆ Import to DMV, storage on farm



Managing With Shortages

- ◆ Re-process chips and residues into bedding material (quality???)



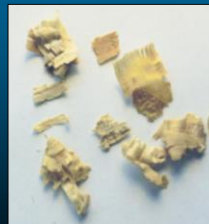
Managing With Shortages

- ◆ Eastern Shore Forest Products thinning pines
- ◆ Shavings mill on-line by January to initially produce 4 million cu ft/yr (and dry) or re-process wood chips



Alternative Bedding Materials

Quality Pine Shavings/Sawdust is the Premier Bedding !!!



Supplement with Hardwood



Poplar Sawdust

- ❖ Some use dry or treated hardwood (green oak ??)
- ❖ Poplar = health/mold to pine and less litter cake/foot pad lesions than poor quality pine

(UD study funded by USDA, FS)

Composted Land Clearing/ Poultry/Ag Waste



- ❖ Local supply and cost effective?
- ❖ Higher mold but no detrimental effects *to date*.

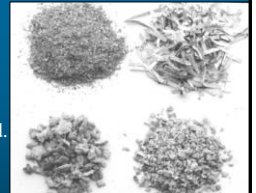


Masonry Grade Sand



- ❖ Only farms near sand plants and markets for litter
- ❖ Less beetles, similar performance, higher ammonia/dust?
- ❖ Must dry, warm weather placement and radiant heaters

Paper-Based Products



- ❖ Some shredded paper and cardboard tubes being used, cut better than shred.
- ❖ Some pelleted paper (AL) and cardboard (NC/SC) being used, limited supply, hard pellets works well.
- ❖ Ground sheet rock (NC firm); used as base layer, nutrient management benefits??

Alternatives to Cleanout



In-House Litter Pasteurization

- Reduce pathogens, beetles, ammonia, crusting
- Recondition/dry litter/extend life
- Used by commercial and by organic producers



Outlook for Bedding and Alternatives

1. No increase in sawmill output, face competition for existing products.
2. Expect more re-processed pine products as supplement or blend.
3. May be local sources of wood and paper base products alternatives.
4. Increase use of windrowing to reduce pathogens, recondition litter and offset frequency of cleanout and bedding demand/cost.
5. Cost of quality bedding will not decrease!