The Oklahoma Poultry Litter Market

Jason Hollenback
Oklahoma State University
Extension Agriculture Educator
Problems

- Distribution
  - Production areas in vulnerable watershed areas
  - High Fertility Value vs. Low Market Value
  - Logistics and Timing
  - Inaccurate weights and tests
Pitfall

Cleanout and Freight cost

- Rising cleanout cost
- Lack of viable cleanout personnel
- Large volumes of litter short amount of time
Education

- State Mandated Education
  - Based on principles of reduced phosphorus inputs, while maintaining productivity.
  - SOIL FERTILITY/forage production
    • Alternatives

Buyer Education
Fertility Demo.s/Yields
Current External Factors

- City of Tulsa vs. 7 Poultry Integrators + City of Decatur AR.
  - Moratorium on land application in the Eucha Watershed, Oklahoma and Arkansas
- Rising Commercial Fertilizer Prices
  - Urea 46-0-0 $225+/ton
- Oklahoma State Laws/ODA Rules Restricting Litter Application
Marketing System

- County Based
  - Advertising through all county offices
  - Available by form, phone, or web

- Web Based
  - Tied to phone entries, form entries through ODA and County Offices
  - Available to the world via computer
Litter Marketing Websight

- Developed by Yulia Popova
- Funded by EPA and Conservation Commission through the 319 project
- Maintained by OSU and ODA in cooperation
- A FREE service to buyers, sellers, and haulers
Websight

- Developed to facilitate information between buyer, seller and hauler
- Interactive- Updated immediately
- Autonotification of new Members
- Membership basis- tool to track market activity
- Extension Educator is point of assistance
Navigating the OK Litter Market Website

http://www.ok-littermarket.org/
OKLAHOMA LITTER MARKET

“Promoting a better understanding of the movement and application of poultry litter in Oklahoma.”

- CURRENT SELLERS  CURRENT BUYERS  CURRENT HAULERS

ANNOUNCEMENTS

NEW: Click here to see a new and improved system for calculating the dollar value of the total fertilizer nutrients in litter, based on commercial fertilizer prices. After you are finished, you can print out your calculations for further reference.

IN THE NEWS

- Settlement Talks Continue For Third Day In Tulsa Lawsuit, 5/16/2003

CASE STUDIES

- Economical Use of Poultry Litter in Cattle Grazing - Case Study I
- Economical Use of Poultry Litter in Cattle Grazing - Case Study II

JOIN US!

Browse our database now! Simply click on Sellers, Buyers, and Haulers links above to see a complete list of our current...
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- FACT SHEETS ON LITTER
- WHAT IS POULTRY LITTER?
- WHAT IS IT WORTH?
- HOW TO TEST ITS QUALITY?
- ARE THERE REGULATIONS?
- POULTRY LITTER NEWSLETTER
- OKLAHOMA POULTRY NEWS
- MESSAGE BOARD
- ACKNOWLEDGEMENTS
- HOME

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**OKLAHOMA LITTER MARKET**

"Promoting a better understanding of the movement and application of poultry litter in Oklahoma."

<table>
<thead>
<tr>
<th>CURRENT SELLERS</th>
<th>CURRENT BUYERS</th>
<th>CURRENT HAULERS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
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**BUYER PROFILE: Jack Mooney**

<table>
<thead>
<tr>
<th>Data Category</th>
<th>Data Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Jack Mooney</td>
</tr>
<tr>
<td>Address</td>
<td>Rt. 1, Box 228</td>
</tr>
<tr>
<td>City, State, Zip</td>
<td>Big Cabin, OK 74332</td>
</tr>
<tr>
<td>County</td>
<td>Craig</td>
</tr>
<tr>
<td>Phone</td>
<td>918-783-5515</td>
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<tr>
<td>Cleaning Service Needed?</td>
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</tr>
<tr>
<td>Loading Service Needed?</td>
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<tr>
<td>Trucking Service Needed?</td>
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<tr>
<td>Spreading Service Needed?</td>
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<tr>
<td>Amount Needed, tons</td>
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<tr>
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</table>
OKLAHOMA LITTER LINE 2002

"Promoting a better understanding of the movement and application of poultry litter in Oklahoma."

CURRENT SELLERS  CURRENT BUYERS  CURRENT HAULERS

WELCOME!

Welcome to our new look! We've recently changed our website to make it more functional and attractive. If you care to leave a comment, feel free to email our webmaster. Enjoy!

ABOUT OKLAHOMA LITTER LINE 2002

This project is a pilot program to implement an electronic market for agricultural wastes. Initially the market will focus on poultry litter, since litter is generally perceived as a marketable product, and much buying and selling of litter takes place in Eastern Oklahoma and Western Arkansas.

JOIN US!

Browse our database now! Simply click on Sellers, Buyers, and Haulers links above to see a complete list of our current members, or log in to join the Litter Market. It's fast and easy! Don't have enough time to fill out our online forms? Not a problem! Call the Oklahoma Department of Agriculture's Litter Hotline at 1-800-583-7131 or email us at staff@ok-littermarket.org and we'll do it for you!
### Oklahoma Litter Market

"Promoting a better understanding of the movement and application of poultry litter in Oklahoma."

**Current Sellers**  **Current Buyers**  **Current Haulers**

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#### Seller Profile: Frank Howery

<table>
<thead>
<tr>
<th>Data Category</th>
<th>Data Entry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Frank Howery</td>
</tr>
<tr>
<td>Address</td>
<td>Rt 1 Box 123C</td>
</tr>
<tr>
<td>City, State, Zip</td>
<td>Spire, OK 74959</td>
</tr>
<tr>
<td>County</td>
<td>LeFlore</td>
</tr>
<tr>
<td>Phone</td>
<td>918-963-3306</td>
</tr>
<tr>
<td>Was the Litter Tested?</td>
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<tr>
<td>Litter Type</td>
<td>Broiler</td>
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<tr>
<td>Price Requested, $/ton</td>
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<tr>
<td>Amount Available, tons</td>
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<td>Trucking Service Provided?</td>
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<tr>
<td>Date Updated</td>
<td>September 18, 2002</td>
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</table>

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OSU  DASNR  OK CES  WASTE MANAGEMENT  WATER QUALITY
DEPT OF AG ECON  WEBMASTER  SITE ADMINISTRATION
OKLAHOMA LITTER MARKET

"Promoting a better understanding of the movement and application of poultry litter in Oklahoma."

- CURRENT SELLERS
- CURRENT BUYERS
- CURRENT HAULERS

WELCOME TO YOUR PERSONAL PAGE, Mitch!
Thank you for joining our Online Manure Marketing Program! As a member, you may select any of the following options:

- Manage your account
  - Change your login/password
  - Enter/edit your contact information

- Add/edit BUYER profile
  - Add a request for litter

- Add/edit SELLER profile
  - Add a batch of litter for sale

- Add/edit HAULER profile
  - Add a truck/service

- Email our staff and they'll enter your information for you!
  (please, include your phone number in your email message!)

OSU | DASNR | OK CES | WASTE MANAGEMENT | WATER QUALITY
DEPT OF AG ECON | BILL BURTON | WEBMASTER
Poultry Litter Value Calculator
OKLAHOMA LITTER MARKET

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HOW TO CALCULATE VALUE OF TOTAL NUTRIENTS IN LITTER

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STEP ONE:
COST OF NUTRIENTS IN COMMERCIAL FERTILIZER

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DETERMINE COST PER POUND OF N IN UREA

$215$ cost per ton urea / 920 lb

This page had 55 hits.
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RESULTS

- N value per ton of DAP is $84.13
- Cost per lb of N in urea is $0.234

**DETERMINE VALUE OF P205 PER TON OF DAP**

$238 total cost per ton of DAP - $84.13 value of N per ton of DAP

* DAP = Diammonium phosphate fertilizer

This page had 51 hits.

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RESULTS

- Cost per lb of P2O5 in DAP is $0.167
- P2O5 value per ton of DAP is $153.87
- N value per ton of DAP is $84.13
- Cost per lb of N in urea is $0.234

DETERMINE COST PER LB OF K2O

$175 cost per ton / 1200 lb K2O per ton
RESULTS

- Cost per lb of K2O is $0.146
- Cost per lb of P2O5 in DAP is $0.167
- P2O5 value per ton of DAP is $153.87
- N value per ton of DAP is $84.13
- Cost per lb of N in urea is $0.234

STEP TWO:
ANALYSIS FROM LAB
RESULTS

- Cost per lb of K2O is $0.146
- Cost per lb of P2O5 in DAP is $0.167
- P2O5 value per ton of DAP is $153.87
- N value per ton of DAP is $84.13
- Cost per lb of N in urea is $0.234

MANURE TEST VALUES (AS-IS BASIS)

- 75 lb N per ton of litter (year one)*
- 60 lb P2O5 per ton of litter
- 55 lb K2O per ton of litter

*Estimated 70% availability in first year. In subsequent years’ applications, about 70% can be considered available. So, we’ll multiply your initial value by 0.7

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RESULTS

- 55 lb K2O per ton of litter
- 60 lb P2O5 per ton of litter
- 52.5 lb N per ton of litter
- Cost per lb of K2O is $0.146
- Cost per lb of P2O5 in DAP is $0.167
- P2O5 value per ton of DAP is $153.87
- N value per ton of DAP is $84.13
- Cost per lb of N in urea is $0.234

STEP THREE:
CALCULATING FINAL VALUES
RESULTS

- Total value per ton of litter is $30.319
- K2O value per ton of litter is $8.03
- P2O5 value per ton of litter is $10.02
- N value per ton of litter is $12.269
- 55 lb K2O per ton of litter
- 60 lb P2O5 per ton of litter
- 52.5 lb N per ton of litter
- Cost per lb of K2O is $0.146
- Cost per lb of P2O5 in DAP is $0.167
- P2O5 value per ton of DAP is $153.87
- N value per ton of DAP is $84.13
- Cost per lb of N in urea is $0.234

Click here to get a detailed printout of your calculations

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HOW TO CALCULATE
VALUE OF TOTAL NUTRIENTS IN LITTER

STEP ONE:
COST OF NUTRIENTS IN COMMERCIAL FERTILIZER

1. DETERMINE COST PER POUND OF N IN UREA
   $ 215 / 920 lb = $ 0.234 per lb

2. DETERMINE VALUE OF N PER TON OF DAP
   $ 0.234 per lb * 360 lb = $ 84.13 per ton

3. DETERMINE VALUE OF P2O5 PER TON OF DAP
   $ 238 total cost per ton of DAP - $ 84.13 value of N per ton of DAP = $ 153.87 per ton

4. DETERMINE COST PER LB OF P2O5 IN DAP
   $ 153.87 per ton / 920 lb P2O5 per ton = $ 0.167 per lb

5. DETERMINE COST PER LB OF K2O
   $ 175 cost per ton / 1200 lb K2O per ton = $ 0.146 per lb
$153.87 \text{ per ton} / 920 \text{ lb P2O5 per ton} = $0.167 \text{ per lb}

5. DETERMINE COST PER LB OF K2O

$175 \text{ cost per ton} / 1200 \text{ lb K2O per ton} = $0.146 \text{ per lb}

\text{STEP TWO: ANALYSIS FROM LAB}

1. DETERMINE N LB PER TON OF LITTER

75 lb N per ton of litter (year one) * 0.7 = 52.5 lb N per ton of litter

2. DETERMINE P2O5 LB PER TON OF LITTER

60 lb P2O5 per ton of litter

3. DETERMINE K2O LB PER TON OF LITTER

55 lb K2O per ton of litter

\text{STEP THREE: CALCULATING FINAL VALUES}

1. DETERMINE N VALUE PER TON OF LITTER

52.5 lb N per ton of litter * $0.234 \text{ per lb of N} = $12.269 \text{ per ton}
STEP THREE:  
CALCULATING FINAL VALUES

1. DETERMINE N VALUE PER TON OF LITTER  
52.5 lb N per ton of litter * $0.234 per lb of N = $12.269 per ton

2. DETERMINE P2O5 VALUE PER TON OF LITTER  
60 lb P2O5 per ton of litter * $0.167 per lb of P2O5 in DAP = $10.02 per ton

3. DETERMINE K2O VALUE PER TON OF LITTER  
55 lb K2O per ton of litter * $0.146 per lb of K2O = $8.03 per ton

4. DETERMINE TOTAL NUTRIENT VALUE PER TON OF LITTER  
$12.269 per ton (N) + $10.02 per ton (P2O5) + $8.03 per ton (K2O) = $30.319 per ton of litter
The Delaware County Litter Marketing Meeting

- Started in 2001 to bring buyers, sellers and haulers together for educational information and to facilitate trade.
- Lists of available litter, sellers and haulers distributed between parties
Results

- Evaluations reflect increased market activity
- Low market value continues to bottleneck the market
- Demand is improving
- Haulers indicate a rapid increase in litter going outside the Eucha watershed
Litter Marketing for Tomorrow

- Dependent on results of the Tulsa vs. Poultry Industry judgement
- Future Legislation
- Highly dependent on policy of Poultry Integrators
- **Buyer Demand!**
- Extensions Activities in Marketing Information