

A wooden board with a blue border holds several awards and a compass. At the top left is a red ribbon award with a circular medallion. Below it is a silver star-shaped award with a central medallion. To the left is a blue ribbon award with a circular medallion. At the bottom left is a silver compass. A pair of glasses with thin metal frames and a thin rod with two red tips lies across the board.

# 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
- ◆ Autnotification of new Members
- ◆ Membership basis- tool to track market activity
- ◆ Extension Educator is point of assistance



A corkboard with a blue border holds several military medals and a compass. The medals include a red ribbon with a circular emblem, a blue ribbon with a circular emblem, and two silver Maltese crosses with central emblems. A compass is visible in the bottom left corner.

# 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](#)

## TABLE OF CONTENTS

- [FACT SHEETS ON LITTER](#)
- [WHAT IS POULTRY LITTER?](#)
- [WHAT IS IT WORTH?](#)
- [HOW TO TEST ITS QUALITY?](#)
- [ARE THERE REGULATIONS?](#)
- [LITTER MARKET UPDATE](#)
- [OKLAHOMA POULTRY NEWS](#)
- [LINKS](#)
- [MESSAGE BOARD](#)
- [ACKNOWLEDGEMENTS](#)
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**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

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## JOIN US!



Browse our database now! Simply click on Sellers, Buyers,



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- [CURRENT SELLERS](#)
- [CURRENT BUYERS](#)
- [CURRENT HAULERS](#)

## TABLE OF CONTENTS

- [FACT SHEETS ON LITTER](#) **NEW**
- [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](#)
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## LOG IN/JOIN HERE

New user?

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## BUYER PROFILE: Jack Mooney

Data Category	Data Entry
Name	Jack Mooney
Address	Rt.1, Box 228
City, State, Zip	Big Cabin, OK 74332
County	Craig
Phone	918-783-5515
Cleaning Service Needed?	Yes
Loading Service Needed?	Yes
Trucking Service Needed?	Yes
Spreading Service Needed?	No
Amount Needed, tons	600
Date Updated	September 17, 2002





# OKLAHOMA LITTER LINE 2002

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

- CURRENT SELLERS**
- CURRENT BUYERS**
- CURRENT HAULERS**

## TABLE OF CONTENTS

- **FACT SHEETS ON LITTER** **NEW**
- **WHAT IS POULTRY LITTER?**
- **WHAT IS IT WORTH?**
- **HOW TO TEST ITS QUALITY?**
- **ARE THERE REGULATIONS?**
- **POULTRY LITTER NEWSLETTER**
- **OKLAHOMA POULTRY NEWS**
- **MESSAGE BOARD**
- **SITE ADMINISTRATORS ONLY**
- **HOME**

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## 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.



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](mailto:staff@ok-littermarket.org) and we'll do it for you!





# OKLAHOMA LITTER MARKET

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- [CURRENT SELLERS](#)
- [CURRENT BUYERS](#)
- [CURRENT HAULERS](#)

## TABLE OF CONTENTS

- [FACT SHEETS ON LITTER](#) NEW
- [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](#)

## LOG IN/JOIN HERE

New user?

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## SELLER PROFILE: Frank Howery

Data Category	Data Entry
Name	Frank Howery
Address	Rt 1 Box 123C
City, State, Zip	Spiro, OK 74959
County	LeFlore
Phone	918-963-3306
Was the Litter Tested?	Yes
Litter Type	Broiler
Price Requested, \$/ton	6
Amount Available, tons	150
Date Available	April 1, 2003
Cleaning Service Provided?	No
Loading Service Provided?	No
Trucking Service Provided?	No
Spreading Service Provided?	No
Date Updated	September 18, 2002



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[CURRENT SELLERS](#) [CURRENT BUYERS](#) [CURRENT HAULERS](#)

## TABLE OF CONTENTS

- [FACT SHEETS ON LITTER](#)
- [WHAT IS POULTRY LITTER?](#)
- [WHAT IS IT WORTH?](#)
- [HOW TO TEST ITS QUALITY?](#)
- [ARE THERE REGULATIONS?](#)
- [LITTER MARKET UPDATE](#)
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## NEWS

- [LINKS](#)
- [MESSAGE BOARD](#)
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- [CURRENT SELLERS](#)
- [CURRENT BUYERS](#)
- [CURRENT HAULERS](#)

## TABLE OF CONTENTS

- [FACT SHEETS ON LITTER](#) **NEW**
- [WHAT IS POULTRY LITTER?](#)
- [WHAT IS IT WORTH?](#)
- [HOW TO TEST ITS QUALITY?](#)
- [ARE THERE REGULATIONS?](#)
- [POULTRY LITTER NEWSLETTER](#)
- [OKLAHOMA POULTRY NEWS](#)
- [MESSAGE BOARD](#)
- [SITE ADMINISTRATORS ONLY](#)
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## MEMBER OPTIONS

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## 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!)

# Poultry Litter Value Calculator







# OKLAHOMA LITTER MARKET

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- [CURRENT SELLERS](#)
- [CURRENT BUYERS](#)
- [CURRENT HAULERS](#)

## TABLE OF CONTENTS

- [FACT SHEETS ON LITTER](#)
- [WHAT IS POULTRY LITTER?](#)
- [WHAT IS IT WORTH?](#)
- [HOW TO TEST ITS QUALITY?](#)
- [ARE THERE REGULATIONS?](#)
- [LITTER MARKET UPDATE](#)
- [OKLAHOMA POULTRY NEWS](#)
- [LINKS](#)
- [MESSAGE BOARD](#)
- [ACKNOWLEDGEMENTS](#)
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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

[previous](#)

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## DETERMINE COST PER POUND OF N IN UREA

\$  cost per ton urea / 920 lb

[previous](#)

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## RESULTS

## DETERMINE VALUE OF P2O5 PER TON OF DAP \*

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

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

[previous](#)[next](#)

\* DAP = Diammonium phosphate fertilizer

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## RESULTS

## DETERMINE COST PER LB OF K<sub>2</sub>O

- Cost per lb of P<sub>2</sub>O<sub>5</sub> in DAP is \$ 0.167
- P<sub>2</sub>O<sub>5</sub> 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

\$  cost per ton / 1200 lb K<sub>2</sub>O per ton

[previous](#)[next](#)

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## RESULTS

## STEP TWO: ANALYSIS FROM LAB

- **Cost per lb of K<sub>2</sub>O is \$ 0.146**
- Cost per lb of P<sub>2</sub>O<sub>5</sub> in DAP is \$ 0.167
- P<sub>2</sub>O<sub>5</sub> 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

[previous](#)[next](#)

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## RESULTS

## MANURE TEST VALUES (AS-IS BASIS)

- **Cost per lb of K<sub>2</sub>O is \$ 0.146**
- Cost per lb of P<sub>2</sub>O<sub>5</sub> in DAP is \$ 0.167
- P<sub>2</sub>O<sub>5</sub> 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

lb N per ton of litter (year one)\*

lb P<sub>2</sub>O<sub>5</sub> per ton of litter

lb K<sub>2</sub>O per ton of litter

[previous](#)

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\* 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

## STEP THREE: CALCULATING FINAL VALUES

- 55 lb K<sub>2</sub>O per ton of litter
- 60 lb P<sub>2</sub>O<sub>5</sub> per ton of litter
- 52.5 lb N per ton of litter
- Cost per lb of K<sub>2</sub>O is \$ 0.146
- Cost per lb of P<sub>2</sub>O<sub>5</sub> in DAP is \$ 0.167
- P<sub>2</sub>O<sub>5</sub> 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

[previous](#)[next](#)

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## 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](#)

previous

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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

$$\text{\$ } 21.5 / 920 \text{ lb} = \text{\$ } 0.234 \text{ per lb}$$

##### 2. DETERMINE VALUE OF N PER TON OF DAP

$$\text{\$ } 0.234 \text{ per lb} * 360 \text{ lb} = \text{\$ } 84.13 \text{ per ton}$$

##### 3. DETERMINE VALUE OF P<sub>2</sub>O<sub>5</sub> PER TON OF DAP

$$\text{\$ } 238 \text{ total cost per ton of DAP} - \text{\$ } 84.13 \text{ value of N per ton of DAP} = \text{\$ } 153.87 \text{ per ton}$$

##### 4. DETERMINE COST PER LB OF P<sub>2</sub>O<sub>5</sub> IN DAP

$$\text{\$ } 153.87 \text{ per ton} / 920 \text{ lb P}_2\text{O}_5 \text{ per ton} = \text{\$ } 0.167 \text{ per lb}$$

##### 5. DETERMINE COST PER LB OF K<sub>2</sub>O

$$\text{\$ } 175 \text{ cost per ton} / 1200 \text{ lb K}_2\text{O per ton} = \text{\$ } 0.146 \text{ per lb}$$

$\$ 153.87 \text{ per ton} / 920 \text{ lb P2O5 per ton} = \$ 0.167 \text{ per lb}$

### 5. DETERMINE COST PER LB OF K2O

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

#### STEP TWO:

#### ANALYSIS FROM LAB

##### 1. DETERMINE N LB PER TON OF LITTER

$75 \text{ lb N per ton of litter (year one)} * 0.7 = 52.5 \text{ lb N per ton of litter}$

##### 2. DETERMINE P2O5 LB PER TON OF LITTER

$60 \text{ lb P2O5 per ton of litter}$

##### 3. DETERMINE K2O LB PER TON OF LITTER

$55 \text{ lb K2O per ton of litter}$

#### STEP THREE:

#### CALCULATING FINAL VALUES

##### 1. DETERMINE N VALUE PER TON OF LITTER

$52.5 \text{ lb N per ton of litter} * \$ 0.234 \text{ per lb of N} = \$ 12.269 \text{ per ton}$

## 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

print

previous



# 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