

Keystone Organic Nutrient Applicators (KONAA) PRESENTATION

Clean Environment Commission

April 27th, 2007

Section 1 – Manure Handling Operations

It was found that...

- 94% of membership provided custom services to the livestock industry.
- 83% of the manure handled was hog manure.
- Our members cover between 125-360,000 acres annually.

Section 1 – Manure Handling Operations

- There are a variety of applicator types represented in the group.
- 76% of the membership utilize the common drag hose systems for application.
- 3 km's was an average hauling distance for manure in 2006. Distance pumped has grown steadily over the past 3-5 years.

Examples of Applicator Types

















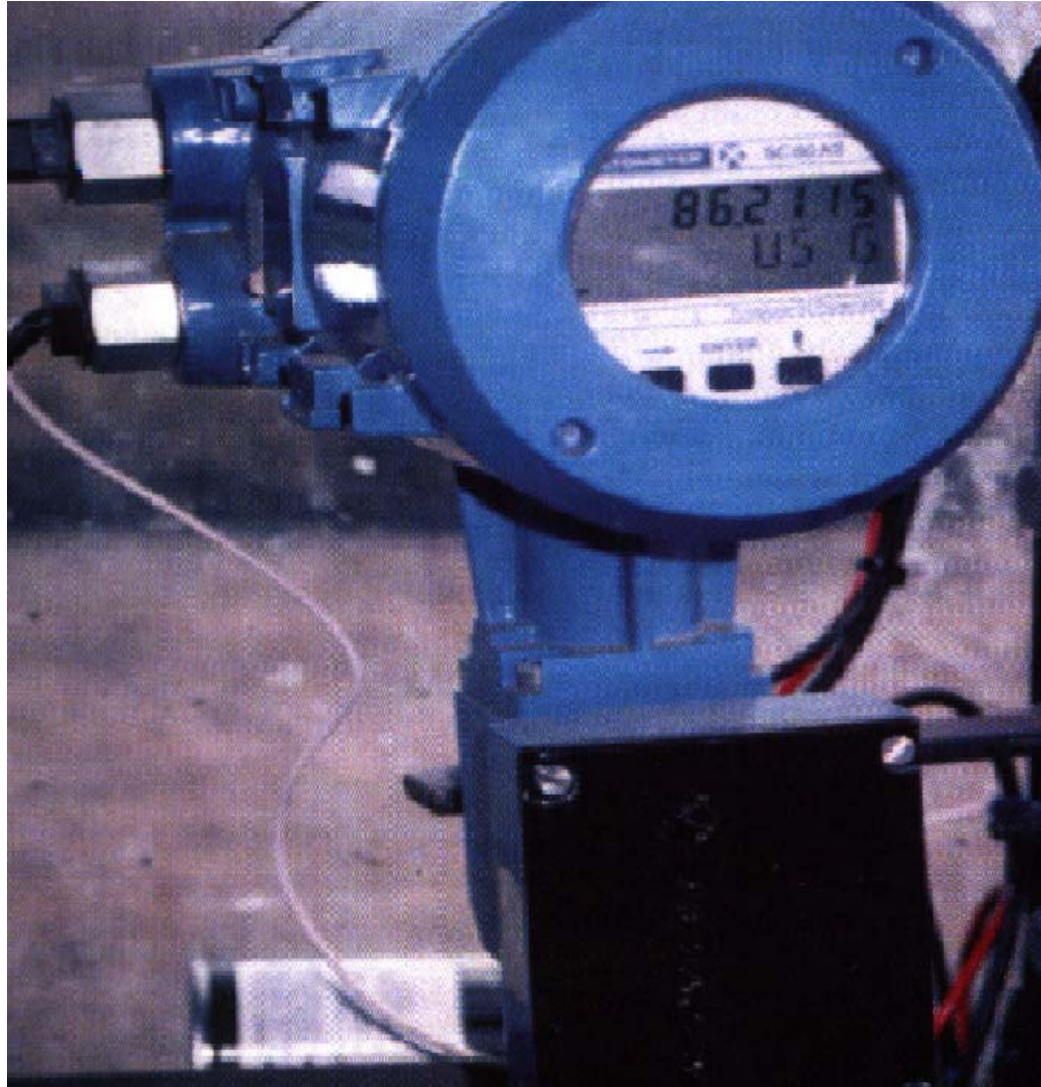
Section 2 – Manure Handling Decisions

- Application rates are based on sound agronomic decisions most often made by the land manager or nutrient management coordinator. These rates are based on government guidelines.
- Applicators equipment choice is often based on individuals preference along with due consideration given to conditions, crop type, etc.

Section 3 – Spreading rates and calibration

- 100% of members reported that rates of manure applied varied for almost every job.
- 88% of the time rates applied are based on nutrient requirements.
- 94% of the time equipment is calibrated to deliver the expected rate of application
- Majority of members are currently utilizing GPS and flow meters.

Typical Flow Meter Installation



Section 4 – Handling of Liquid Manure

Of the total amount of liquid manure spread, percentages are spread almost evenly...

<u>KONAA</u>	<u>Stats Canada Survey</u>
• 38% Tilled	51%
• 33% Minimum Till	20%
• 29% Perennials or forages	24%
• 0% Other	5%

Section 4 – Handling of Liquid Manure

- Membership restricts application primarily to growing season. (April-November) No change in spreading policies between farms <300 or > 300 A.U.'s.
- Prairie survey indicated most farmers spread manure thru out the entire 12 month calendar with the majority also falling in the growing season.

Section 4 – Handling of Liquid Manure

What method is used to spread liquid manure?

<u>Members</u>	<u>Stats Canada Survey</u>
• Broadcast	18% 53%
• Dropped on surface	5% 3%
• Shallow Inj.	39% 14%
• Deep Inj.	38% 25%
• Irrigated	0% 2%
• Other	0% 3%

Section 4 – Handling of Liquid Manure

Does the method of application change from season to season?

- 76% responded no
- 24% Yes, the change occurs in summer when manure is broadcast on to grass that would have stones as a barrier to injection.

Section 4 – Handling of Liquid Manure

How frequently is chemical analysis done on liquid manure?

- 80% of the time.
- 94% of the time our members assisted the customer in obtaining analysis.

It is important to note that nova meters, lab analysis results and historical data banks all play an important role in determining application rates.

Section 5 – Odour Management & Nutrient Conservation

- 80% of members reported they make efforts to minimize odour emissions which often results in nutrient conservation.

Section 6 – Future Directions

Changes we anticipate making that we feel the CEC & public should be aware of...

- We continue to add more hose so that we can reach new spread acres further away.
- On the go Nitrogen testing with variable rate application will be beneficial.(5 yrs. Away?)
- On site phosphorus testers.
- Applicator licensing. We wish to play a consultation role.
- Add dry manure applicators to our list of members.