

Challenges of Treating Manure as Fertilizer

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Learning how to treat manure as a fertilizer is a challenge our industry must come to terms with. The value of the product is well documented and well understood by those utilizing it. The amount of nutrients in manure is significant and is equally useable on cultivated or hay ground.

Some of the challenges producers face in effective use of the product are understanding and meeting the guidelines, having access to equipment on a timely basis, overcoming the cost associated with applications and arranging application in a very narrow window within our season. Another major issue is respecting the community, our neighbours and our families when applying the product.

Managing the product while being cognisant of the environment is a concern of all. Larger units must follow strict rules of application. Soil tests must be done and filed with a manure management plan. Before proceeding with application, pollution of the soil or water must always be a primary concern. The province has the ability to monitor and address improper applications and must be vigilant to ensure confidence in the public.

Probably one of the most difficult challenges is dealing with the public concerns. Public perception is not always moved by fact or reality, but shifted by less than factual statements and intimidation. The real challenge is to spend as much time and effort in looking for answers to the problems as we do in opposing the current development. Research is a very necessary tool in resolving some of these issues. The only way to promote and ensure public protection and confidence is to establish clear and concise rules with enough resolve by government to enforce the rules. This also allows the industry to evolve knowing that as long as all criteria are met the required investments are secure.

The need to overcome the challenges is paramount. The health of our rural communities is very dependent on this piece of the puzzle. If you look at a population map showing the regions in western Canada that have shown population growth it is interesting to note that, generally, rural areas with population growth are those areas that have large animal populations. Another long-term issue was highlighted for me as I was applying my fertilizer this spring at 40 cents/lb for nitrogen. The vice president of the United States at the time was stating that there was no energy crisis; however, it was access to the energy that was the issue. I realized that I was competing for the natural gas to make the fertilizer with the people in California who want to turn their air conditioner on, and it was pretty clear who would win in the end. Manure is one source of nutrients that does not have the same competition.

We need to be thinking ahead and challenging ourselves as to how we can continue to support crop production in the long-term. Learning how to treat manure as fertilizer is one of the answers.

Table. Average nutrient analysis of manures and the amount available for crop use the year applied.

Type of Manure	Number of samples	Total N (avail)*	Ammonium N	Organic N	Phosphate P2O5 (aval)*	Potassium K2O	Sulphur S	Dry matter content %
LIQUID		lb./1000 gallons						
Hog	36	23(18)	16	7	15 (7.5)	13	1.4	2
Dairy	7	26(18)	14	12	13 (6.5)		2.4	6
SOLID		lb./ton						
Hog	3	14(6)	2.0	12	15 (7.5)	16	2.5	35
Poultry	2	34(12)	2.3	32	30(15)	28	6.5	57
Beef	33	9(3)	0.3	9	4(2)	11	1.4	30

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* amount available for following crop use; for nitrogen = ammonium-N + 30% of organic-N,
for phosphorus = 50% of total phosphate.

