naturally adapted to low-N conditions have been replaced by plant species with a higher N demand because of NH_3 deposition. Enrichment of surface water with additional N can lead to eutrophication, especially in coastal waters. Accelerated soil acidification following nitrification is also a potential impact from NH_3 deposition. Direct damage to sensitive vegetation (lichens and bryophytes) can occur even at very low NH_3 concentrations.

There are no current policies or regulations in the USA or Canada that require a reduction in NH_3 emissions from agriculture. However, there are restrictions on NH_3 loss in European countries under the U.N. Convention on Long-Range Transboundary Air Pollutants (Gothenburg Protocol). The Netherlands was the first country to set limits on NH_3 emissions. Ammonia emissions in that country have decreased by more than 40% since 1995. Both the USA and Canada are signatories of the Protocol and regularly submit NH_3 emission inventories.

With attention focused on environmental impacts of agriculture, awareness of the issues related to NH_3 emissions in North America is increasing. The loss of NH_3 not only presents a potential environmental problem, but the loss of a nutrient that could be conserved for beneficial plant nutrition.

Agricultural emissions of NH_3 are primarily associated with animal production. Additional research is needed to measure the extent and the location of these NH_3 losses on the farm. Implementing advanced management practices will assist the animal industry to effectively manage animal manures for their maximum benefit. BC

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Conversion Factors for U.S. System and Metric Units

Because of the diverse readership of *Better Crops with Plant Food*, units of measure are given in U.S. system standards in some articles and in metric units in others…depending on the method commonly used in the region where the information originates. For example, an article reporting on corn yields in Illinois would use units of pounds per acre (lb/A) for fertilizer rates and bushels (bu) for yields; an article on rice production in Southeast Asia would use kilograms (kg), hectares (ha), and other metric units.

Several factors are available to quickly convert units from either system to units more familiar to individual readers. Following are some examples which will be useful in relation to various articles in this issue of *Better Crops with Plant Food*.

To convert Col. 1 into Col. 2, multiply by:	Column 1	Column 2	To convert Col. 2 into Col. 1, multiply by:
	Length		
0.621	kilometer, km	mile, mi	1.609
1.094	meter, m	yard, yd	0.914
0.394	centimeter, cm	inch, in.	2.54
	Area		
2.471	hectare, ha	acre, A	0.405
	Volume		
1.057	liter, L	quart (liquid), qt	0.946
	Mass		
1.102	tonne[1] (metric, 1,000 kg)	short ton (U.S. 2,000 lb)	0.9072
0.035	gram, g	ounce	28.35
	Yield or Rate		
0.446	tonne/ha	ton/A	2.242
0.891	kg/ha	lb/A	1.12
0.159	kg/ha	bu/A, corn (grain)	62.7
0.149	kg/ha	bu/A, wheat or soybeans	67.2

[1]The spelling as "tonne" indicates metric ton (1,000 kg). Spelling as "ton" indicates the U.S. short ton (2,000 lb). When used as a unit of measure, tonne or ton may be abbreviated, as in 9 t/ha. A metric expression assumes t=tonne; a U.S. expression assumes t=ton.