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## New Safety Guidelines Developed for Two-tank Anhydrous Ammonia Wagons

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# New Safety Guidelines Developed for Two-tank Anhydrous Ammonia Wagons

## **Abstract**

Size and capacity of farm equipment keeps getting larger and fertilizer equipment is no exception. Each year in Iowa approximately a billion pounds of nitrogen is applied as anhydrous ammonia. As equipment has gotten larger, many dealers are now using multi-tank systems with two anhydrous ammonia tanks mounted on to a single wagon running gear.

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## New Safety Guidelines Developed for Two-tank Anhydrous Ammonia Wagons

By Mark Hanna, Department of Agricultural and Biosystems Engineering

Size and capacity of farm equipment keeps getting larger and fertilizer equipment is no exception. Each year in Iowa approximately a billion pounds of nitrogen is applied as anhydrous ammonia. As equipment has gotten larger, many dealers are now using multi-tank systems with two anhydrous ammonia tanks mounted on to a single wagon running gear.

With anhydrous ammonia under pressure, safety is always a concern when plumbing and working around application equipment. "Plumbing for a multi-tank system presents unique challenges," according to Mark Hanna, Iowa State University Extension Ag Engineer. "Valve location and selection are important decisions impacting safe use. As an example, valves meant to provide excess-flow protection should not be oversized."

A new set of voluntary guidelines for plumbing multi-tank anhydrous ammonia systems has been recently developed by a coalition of state government, academia and industry representatives. "As the use of multi-tank systems increases, tank owners should benefit by having these voluntary guidelines. These suggestions from government, academia and industry experts should help applicators review their practices," said Max Smith, Smith Fertilizer and Grain, Knoxville, Iowa.

"Safety is an important component in maintaining the anhydrous ammonia application industry for Iowa corn production," according to Kevin Klomphaus, Feed and Fertilizer Bureau Chief at IDALS.

The guidelines including sketches of suggested plumbing configurations and can be viewed under the news section at [www.agribiz.org](http://www.agribiz.org). The guidelines are voluntary, but dealers and applicators with multiple-tank systems are encouraged to consider the recommendations as equipment is readied for the fall application season.

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