



Clarification

In the article, "The need to justify," on page 102 in the April 2007 issue, UMaxx stabilized nitrogen was referred to as time-release fertilizer. Some questioned the accuracy of that.

Agrotain International uses stabilized nitrogen technology to describe its golf industry products. The result of slow-release, controlled-release or stabilized nitrogen is extended nitrogen availability and performance. Each has certain features and benefits, and use of each depends on which tool a turf manager chooses.

The following definitions are used by the American Association of Plant Food Control Officials to help consumers measure accurate labeling by fertilizer manufacturers. The T definitions refer to fertilizers and compound fertilizers. The N definitions are specific to nitrogen products.

T-21: A slow-release fertilizer that contains sources of water soluble nutrients, release of which in the soil is controlled by a coating applied to the fertilizer.

T-29: A slow- or controlled-release fertilizer that contains a plant nutrient in a form that delays its availability for plant uptake and use after application, or which extends its availability to the plant significantly longer than a referenced rapidly available nutrient fertilizer such as ammonium nitrate or urea, ammonium phosphate or potassium chloride. Such delay of initial availability or extended time of continued availability may occur by a variety of mechanisms. These include controlled water solubility of the material ... by slow hydrolysis of water-soluble, low molecular weight compounds or by other unknown means.

T-32: A slow-release fertilizer consisting of particles coated with polymer resin. It's a source of slowly available plant nutrients.

T-40: A nitrogen stabilizer substance added to a fertilizer that extends the time the nitrogen component of the fertilizer remains in the soil in the urea or ammoniacal form.

T-41: A fertilizer to which a nitrogen stabilizer has been added.

T-45: A urease inhibitor substance that inhibits hydrolytic action on urea by the urease enzyme. When applied to soils, the effect of the inhibitor is less urea nitrogen lost by ammonia volatilization.

T-46: An N-(n-butyl) thiophosphoric

triamide (NBPT) compound that's a normal butyl derivative of thiophosphoric triamides and a urease inhibitor.

T-49: A nitrification inhibitor substance that inhibits the biological oxidation of ammoniacal nitrogen to nitrate nitrogen.

T-70: Enhanced efficiency fertilizer products with characteristics that minimize the potential of nutrient losses to the environment, as compared to a reference soluble product.

N-24: Ureaform fertilizer materials are reaction products of urea and formaldehyde that contain at least 35 percent nitrogen, largely in insoluble but slowly available form. The water insoluble content shall be at least 60 percent of the total nitrogen. The water insoluble nitrogen shall have an activity index of not less than 40 percent when determined by the appropriate AOAC International method.

N-25: Urea-formaldehyde products shall have the percentage of total nitrogen as part of the product name. For example, 20 percent N urea-formaldehyde. The water insoluble nitrogen shall be at least 60 percent of the total nitrogen. The activity index of the water insoluble nitrogen shall be not less than 40 percent by the AOAC International method for urea-formaldehyde products or not less than 50 percent by the AOAC International alkaline permanganate method or 80 percent by the neutral permanganate method.

N-26: Isobutylidene diurea is a condensation product of isobutyraldehyde and urea having a total nitrogen content of 30 percent. It's a source of slowly available nitrogen by virtue of particle size, solubility decreasing with increase in particle size. Material conforming to the description of a granular fertilizer will have 90 percent of its nitrogen content in the water insoluble form before grinding as tested by an AOAC International method.

N-27: A slow-release fertilizer consisting of urea particles coated with sulfur usually further coated with a sealant and conditioner. It typically contains about 30 percent to 40 percent nitrogen and about 10 percent to 30 percent sulfur.

N-28: Reaction products of urea and formaldehyde that contain at least 30 percent nitrogen, largely in the water soluble form. Some slowly available nitrogen products are present. Stable aqueous solutions might be prepared from these materials. **GCI**

GOLF COURSE INDUSTRY

Serving the Business of Golf Course Management

SALES

GIE Media, Inc.
4020 Kinross Lakes Parkway, 2nd Floor
Richfield, OH 44286
Phone: 800-456-0707
Fax: 216-925-5038

Kevin Gilbride

Publisher
Phone: 216-925-5090
kgilbride@gie.net

Russell Warner

Account manager
Phone: 216-925-4647
rwarner@gie.net

Amee Robbins

Account manager, West Coast
Phone: 310-546-6060
arobbins@gie.net

Bonnie Velikonya

Classified sales
Phone: 216-925-5075
bvelikonya@gie.net

Marie Spencer

Marketing manager
Phone: 216-925-4640
mspencer@gie.net

Debbie Kean

Manager, books
Phone: 216-925-5011
dkean@gie.net

Maria Miller

Conferences manager
Phone: 216-925-4657
mmiller@gie.net

GRAPHICS / PRODUCTION

Andrea Vagas, Art director
Mark Rook, Creative director
Helen Duerr, Production director
Lori Skala, Production coordinator

CORPORATE STAFF

Richard Foster, Chairman and c.e.o.
Chris Foster, President and c.o.o.
Dan Moreland, Executive vice president
Jami Childs, Director, business resources and IT
Kelly Roop, Manager, accounting department
Doug Adams, Director, marketing and research

Golf Course Industry is a member of:
Golf Course Superintendents Association of America
Charter Member National Golf Foundation
Golf Course Builders Association of America
The Irrigation Association
Responsible Industry for a Sound Environment

Copyright 2007 by GIE Media, Inc. All rights reserved and reproduction, in whole or in part, without written permission from the publisher is expressly prohibited.

