

**Resource
Magazine's**

**OUTSTANDING
INNOVATIONS
2002**



AE50

AE50 2002

Products winning the 2002 AE50 awards represent the cream of the crop developed throughout the world for the agricultural, food and biological systems industries.

The innovations highlighted in this issue were chosen from numerous entries in the competition sponsored by *Resource*. The judges who chose the winners represent all factions of the agricultural, food, biological and related systems engineering professions. The expert panel selected the best of products first introduced to the marketplace during 2001. These products are expected to save producers time, costs and labor while improving user safety.

Problem solving is a major goal in designs whether one is developing a better way to spread manure, water a golf course or monitor weather conditions. Environmental concerns must also be factored in while keeping production and operating costs low.

The annual AE50 program has been honoring engineering achievements for more than a decade. Past winners include companies of all sizes throughout the world.

Many of the new ideas are patented and their names trademarked. Some may become household words in the future. Others will be improved upon as technology advances.

From improved tractors and implements to computer software and high-tech electronic measuring devices, the 2002 AE50 winners cover a gamut of devices.

The AE50 is the only awards program of its kind to reward companies for developments in specific areas of agricultural, food and biological systems.

For information on how to enter next year's competition, contact Sandy Rutter at 616-429-0300 ext. 345 or rutter@asae.org.

Information on the AE50 and *Resource* magazine is also available on the ASAE Web site at www.asae.org.



● Tractors' automatic controls save time, improve efficiency



AGCO® LT, RT and DT Series tractors, 70 to 225 PTO horsepower (52 to 168 PTO kilowatt), feature technologies such as the Auto QuadraShift®, Spool Valve Management System (SMS), and Trailed Implement Control (TIC) to help farmers increase productivity. Auto QuadraShift® simplifies operation by eliminating the manual functions normally used to operate the 32 forward x 32 reverse transmission. With PowerControl Shuttle, the operator controls direction and four-speed power shifts for on-the-go gear and range changes. The auto feature changes powershift speeds automatically as the working conditions of the tractor change. The SMS with Datatronic controls two electro-hydraulic proportional valves allowing precise flow rate and valve kick-out timing adjustment for more productive implement management. TIC is also available to automatically adjust the working depth of the trailed implement, enabling full draft control.

AGCO Tractors, a wholly owned subsidiary of AGCO Corp.
Duluth, Georgia, USA; 770-813-6056

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● Injection system aerates soil consistently, uniformly

Mazzei AirJection® Irrigation, in conjunction with sub-surface drip irrigation (SSDI), continually delivers a specific amount of air to the root zone during irrigation. When water enters the AirJection® unit, air is drawn in, entrained in the water, and is then uniformly distributed to the plant roots through the SSDI lines. The entrained air then moves through the soil with water as the carrier. Past attempts to aerate the root zone typically involved injecting air directly into the soil with compressors, or air alone was pumped through SSDI lines. Using these methods, the air was not distributed effectively. The patented Mazzei AirJection® Irrigation aerates water delivered to the root zone for increased root growth and yields.

Mazzei Injector Corp.
Bakersfield, California, USA; 661-363-6500



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