Ag Plastics Use Grows Throughout World

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— Use of plastics in agriculture has increased about 60 percent in less than a decade, according to a plasticulture expert.

Jean-Pierre Jouet, general secretary of the International Congress for Plastics In Agriculture (CIPA), said that in 1991, about 1.145 million cubic metric tons of plastic were in use in the world.

By 1999, that number had risen to 2.847 million cubic metric tons.

Jouet spoke on the first of a two-day 15th International Congress for Plastics In Agriculture at the Hershey Lodge and Convention Center, Hershey, at the end of September.

Simultaneously, because of improved plastics engineering and production, energy consumption in greenhouse

and other areas has been reduced by 90 percent, noted Gene Giacomelli, professor at the University of Arizona at Tucson

According to Giacomelli, since the last international congress was hosted in the U.S. — the seventh congress in San Diego in 1977 — the energy reduction has amounted to about 90 percent through adaptation and further refinement of ag plastics technology.

And we did all that, he said, during a national energy crisis.

"If we had another energy crisis, could we reduce this further?" noted Giacomelli. "Our predecessors had it easy. This becomes a major challenge."

Since 1977, energy requirements have been reduced to 1.1 liter from 9.9 liters. That 1.1 liters or less represents .2 gallons per square foot.

In 1977, according to Giacomelli, San Diego County, Calif., was the largest user of ag plastics in the U.S., with more than three quarters used for irrigation and water-related needs.

Today, plastic polymers for all forms of irrigation are prevalent throughout the U.S. and the world.

In the world, low tunnels make up 402,000 hectares or 992,940 acres, according to Jouet. In 1991, for the U.S., that represented only 3,400 hectares, which grew to 5,000 hectares or 12,350 acres, by 1999. Africa uses 80,000 hectares or 197,600 acres. But the largest user is Asia, at 170,000 hectares or 419,900 acres.

Direct covers make up 86,000 hectares in the world. More direct covers are used in Europe than any other part of the world, noted Jouet, at 60,000 hectares or

148,200 acres.

Mulch uses for plastic in the world comprise 4.53 million hectares or 11.19 million acres. The U.S. only uses 75,000 hectares, about 185,250 acres. China makes up 44 percent of total world plastic mulching use, maybe even more, noted Jouet, at 2 million hectares (4.94 million acres).

Plastic for silages and other material, including wraps and bags, amounts to 540,000 metric tons. The U.S. uses 300,000 metric tons. Europe uses about 190,000 metric tons.

In the world, hydroponics comprises about 17,900 hectares or 44,213 acres. U.S. only has about 250 hectares or about 617 acres in hydroponics.

Microirrigation plastic use in the world encompasses 2.5 million hectares or 6.17 million acres. The U.S. has about

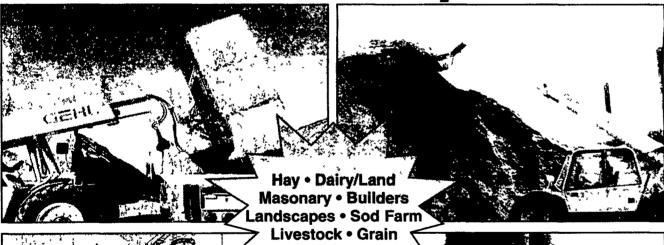
1.076 million hectares or about 2.65 million acres.

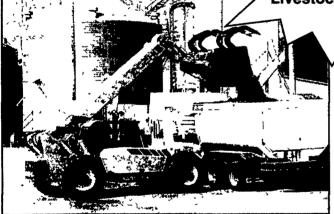
About 204,000 metric tons of plastic for twine hay and straw are used in the world. Other application of plastic for screens, nets, windbreaks, and other uses comprises 24,000 metric tons, noted Jouet.

The two-day conference included about 266 registered from agriplastic industries and organizations throughout the world. Demonstrations were conducted at the Milton Hershey School Horticultural Center the Sunday before.











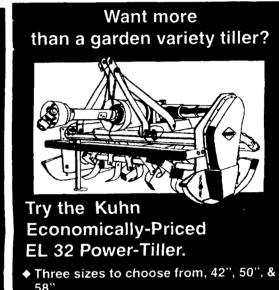
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