

Agronomists Report New Use For Old Tires

Discarded rubber tires, may someday be put to work to aid crop growth. Research underway at Mississippi State University points to this possibility. The research is sponsored by the U. S. Rubber Reclaiming Company of Vicksburg, Mississippi, a leading rubber reclaiming company. The problem of what to do with discarded rubber waste, old tires particularly, has plagued environmental scientists.

Drs. Rollin C. Glenn and C. Y. Ward of the University's Agricultural Forestry Experiment Station have reported a series of experiments in which ground up rubber particles were mixed with soil in varying percentages. Soybeans, selected because earlier studies showed they were sensitive to toxic elements, were planted in the rubber and earth mixture. The agronomists tested the effects of rubber when mixed with soil in amounts of one to 10 percent by weight. Rubber particles were mixed into the soil in December of 1970; the soybeans

were seeded the following May.

If the resulting phenomenon proves out in future experiments, it may be that old tires will help agriculture solve one of its most critical problems—how to get crops above ground as fast as possible to ensure a successful harvest.

The higher the percentage of rubber used, the scientists noted, the faster the plants came out of the ground. Those planted in soil with a five to 10 percent rubber mixture emerged "significantly faster" than the plants grown in soil with lesser percentages of rubber.

At harvest, plants grown in soil with the higher percentages of rubber were a couple of inches shorter than the others. This was seen as an advantage to farmers, the shorter plants being less susceptible to wind damage.

Most important, the plants showed no visible signs of abnormality. Previous experiments inside a greenhouse had disclosed toxicity from the zinc oxide content of rubber. Some plants were killed, others showed abnormalities.

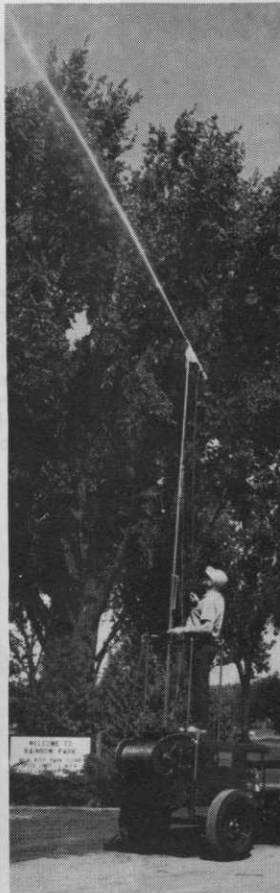
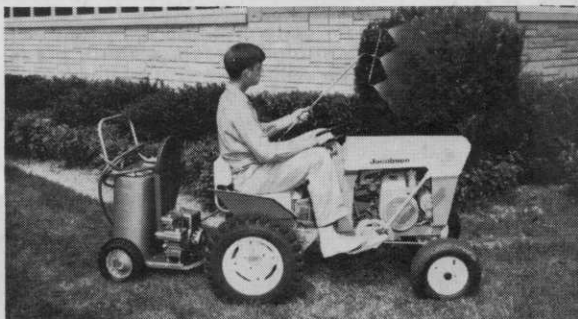
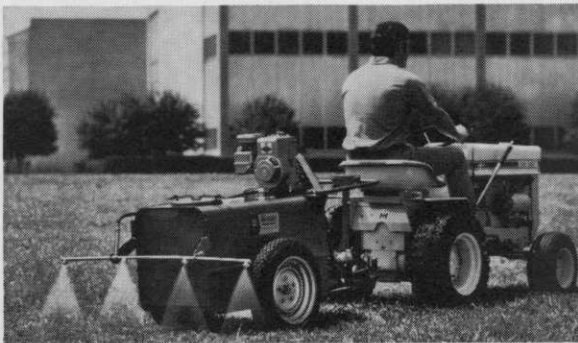
Other potential benefits were also noted. Winter weeds died off soon after the rubber particles were mixed into the soil, during the period of greatest toxicity. And if put into widespread agricultural use, rubber might help maintain zinc oxide content of animal and food products.

A similar experiment with winter wheat is now being conducted at Mississippi State, Drs. Glenn and Ward reported.

Benjamin R. Wendrow, President of U. S. Rubber Reclaiming, explained that his company's sponsorship of the Mississippi State research is an effort to develop mass uses of reclaimed rubber. Some two billion old tires now litter the landscape, with another 200 million a year being added.

Nor can this refuse be recycled in the same way as paper, glass and metal. Or buried, or burned. Buried tires tend to wriggle their way back up to the surface. If burned, they give off an oily smoke which can pollute an entire area.

Up to now, the best long-range prospect for reclaimed rubber has been its use in highway and street paving. When mixed with asphalt, rubber produces paving surfaces which last longer and are free of some of the problems common to asphalt. "Rubber roads are gradually gaining consideration in highway construction," Mr. Wendrow states, "but their rate of use is far below their rate of discard."



Help from Hudson on any spraying job

You name the spraying job—small, medium or large. A Hudson power sprayer can tackle it.

Take our 12½-gallon Suburban™ Trail-N-Spray™. Hitch to any compact tractor. Dependable positive piston pump—2½ gpm.

Or step up to our Matador® sprayers. Choice of 3 or 5 gpm positive piston pump. Four tank sizes: 15, 30, 50, 100 gallons.

For really big jobs, choose from our Peerless™ line on wheels or skids—with tanks sizes up to 300 gallons. Can

cover turf at 10 acres an hour with 20-ft boom. Or reach up high with telescopic gun mast. Models available with rugged Ten-O-Matic® 10-gpm pump, stainless steel tank for trouble-free service.

Write for details. H. D. Hudson Manufacturing Company, 154 E. Erie St., Chicago, Illinois 60611.

SIGN OF THE BEST BUY



HUDSON
POWER SPRAYERS

© MCMLXIX H.D.H. Mfg. Co.