

New-Style Log Splitters

"Farm boys can operate this log splitter in complete safety," says a spokesman for Forano, manufacturer of a new-style log splitter that mounts on the 3 pt. hitch of most any tractor from 12 hp. and up, provided it's equipped with a hydraulic system.

The splitter handles logs from 16 to 26 in. long. A hand-operated adjustment makes it easy to adjust for the proper "bite" in a matter of seconds.

The unit can be mounted off to one side to clear the drawbar so a trailer or wagon can be pulled behind the tractor to haul the freshly-chopped wood, or to free the drawbar for other uses. Operates off any standard cylinder measuring 3, 3½ or 4 in. in dia., and with an 8 or 10 in. stroke.

Suggested retail cost is \$335, including remote hydraulic control but not including the hydraulic cylinder.

For more details, contact: FARM SHOW Followup, Forano, Co., Woodstock, Ont., Canada (ph. 519-462-2771).



Forano splitter handles logs from 16 to 26 in. long. Mounts off to one side to clear the drawbar for towing wagons, trailers.



"It has a much lower price tag than other comparable hydraulic splitters," says Tri-Star Corp. of its new 3 pt. hitch, tractor-mounted log splitter. The 180 lb. unit splits logs from 12 to 20 in. in length, using a 3, 3½ or 4 in. cyl. with an 8 to 10 in. stroke. A control rod allows one man to operate the splitter from the rear of the tractor. Sells for \$229.95. Contact: Tri-Star Corp., Vandalia, Ill. (ph. 618-283-1666).

"SCRUBBER" EXTRACTS NUTRIENTS FROM ENGINE'S EXHAUST FUMES

New Yield Booster For Irrigators

Spiking irrigation water with "free" nitrogen and carbon dioxide (CO₂) extracted from the exhaust of the engine that pumped it boosted corn yields a whopping 12 bu. per acre in a Kansas trial last year.

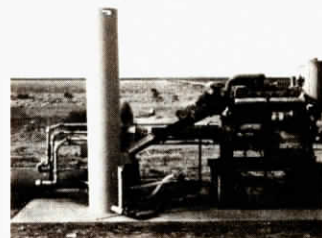
"We think it has exciting yield-boosting possibilities for hundreds of irrigators throughout the U.S., particularly those with alkaline soils under irrigation," Jim Persinger, president of Fuel, Inc., and inventor-manufacturer of the Exhaust Scrubber told FARM SHOW. The device, backed by two years of extensive testing on a wide variety of irrigated crops, has just been introduced on the market and stands ready to show its stuff to irrigators who use natural gas, LP gas, or diesel irrigation engines to pump irrigation water, whether from a well or a surface supply.

Virtually all irrigation farmers with alkaline soils can substantially lower pH of the water by spiking it with CO₂ extracted from the engine exhaust, according to Persinger. He explains that water, at the rate of 20 gal. per minute, is used to "scrub" nitrogen and CO₂ from the total exhaust. The enriched water is then injected into the irrigation water.

The scrubber device is 8 ft. tall, 16 in. in dia., and weighs 500 lbs. Exhaust hookups are available for one, two or four exhaust pipes.

The amount of actual nitrogen and CO₂ extracted by the Exhaust Scrubber depends on the size of the engine, the type of fuel being used, and other factors. For example, a 534 Ford engine operated at 2400 rpm fueled with natural gas and pumping well water at the rate of 1000 gpm., will produce about 2 lbs. of actual nitrogen per hour, and about 30 parts per million of CO₂, explains Persinger. "If pH of the irrigated water is 7.5, it will drop to about 7.0 with injection of 'scrubbed' CO₂. In addition to lowering the pH level of the water, and ultimately of the soil itself, CO₂ 'scrubbed' from the engine exhaust helps increase water penetration, speeds decay of organic material, and helps make soil nutrients more readily available to plants."

Equipping an irrigation engine with the new "scrubber" system doesn't hurt the engine, according to Persinger, and doesn't create any back pressure or make the engine work any harder. "At most, the system requires only 1 hp. to operate. On extremely alkaline soils, two or four exhaust scrubbers can be installed on one engine." If a farmer has several alkaline spots scattered throughout a field that is otherwise non-alkaline,



Exhaust Scrubber uses 20 gal. of water per min. to "scrub" N and CO₂ from the engine's exhaust. The enriched water is then injected back into the irrigation water. The "scrubber" device is 8 ft. tall, 16 in. in dia. and weighs 500 lbs. It is custom built for each application.

the "scrubber" can be operated on an on-off basis so it can inject CO₂ when the alkaline spots are being watered, then be turned off for non-alkaline areas of the field. The device isn't recommended for use on irrigated non-alkaline soils.

Persinger emphasizes that enriching irrigation water with CO₂ and nitrogen "scrubbed" from engine exhaust doesn't harm soil bacteria, nor does it pose any corrosion or other problems to aluminum or other types of irrigation pipes, valves, pumps or other equipment.

Exhaust Scrubbers are custom built for each application. "We start with a complete analysis of the soil and irrigation water to determine design specifications," explains Persinger. In addition to the company's main office in Kansas, his firm, Fuel, Inc., has opened a West Coast sales and service office, headquartered at Vandalia, Calif.

Cost of a "Scrubber" system is right at \$1,900 for use on engines up to 800 cu. in., and \$500 additional for larger engines. The new invention is the second major "innovation" Persinger has developed for irrigators. Two years ago he developed and began manufacturing a filter for filtering natural gas. "Most users report a 6 to 13% reduction in fuel cost after installing our natural gas filter," says Persinger. "It removes formation water, hydrogen sulfides, sulfur and iron sulfides from natural gas."

For more details on the engine Exhaust Scrubber, and the natural gas fuel filter, contact: FARM SHOW Followup, Fuel, Inc., Jim Persinger, Pres., Box 477, 512 South Main, Hugoton, Kan. 67951 (ph. 316-544-2882).