

er is apt to get a high percentage of chemical, while another down the street gets mostly water.

Perhaps some of the new, specially designed outfits have overcome this problem.

Our own answer, when we needed more equipment, was a 1960 pickup Jeep with 4-wheel drive. To add a power take-off, we hooked up the transmission so it runs a Hypro 6-neoprene-roller pump. This is located underneath the Jeep, completely out of the way. This pump is again connected to two 55-gallon drums carried in the box of the Jeep. As can be seen in the pictures, we have bypasses, relief valves, selector valves, and hose connections all conveniently attached to the outside right hand side of our pickup.

We put away our 200 ft. of $\frac{3}{8}$ " insecticide hose and bought 300 ft. of $\frac{3}{4}$ " garden hose which is easy to handle and does not kink. It is rubber with neoprene housing and is guaranteed by the manufacturer "to withstand 15 times house pressure." We use this type of hose because it delivers a good quantity of chemical, saves time, and is light and easy to maneuver. We've now used this hose for 3 years without any unusual breaks or harmful effects from the chemicals we spray. These chemicals are the emulsifiable type, such as chlordane and dieldrin, used primarily for lawn treating and termite work.

The pump itself is almost fool-

proof. We can completely overhaul it, replace the rollers with a whole new set, and be back in business in a half hour at the most.

Extra Benefits

There are also "secondary values." For example, our power take-off system is safe. Children are always around looking at our equipment, but now there's no chance they'll get their fingers caught in the mechanism. The whole unit runs directly off the Jeep and we find it 100% efficient.

For our belt drive we use link belts which are easy to adjust on the job without having to move pumps, etc., on slotted bases. There are belts on the market today which can save precious time and expense with the elimination of one link, or cutting off 1" and reconnecting the belt with special connectors. These pulley belts cost about the same as the old continuous type which have no connections, and which have a bad habit of wearing out or expanding at the wrong time. This required using all kinds of tools to move motors and get everything going again.

We are amazed that so many contract applicators have trucks which could be converted like ours, and so few have used this device. Right at their fingertips, they have the means to add a power take-off directly to their vehicles. With the proper arrangement of pipes, hoses, adapters, etc., operators can have one of the sweetest spray rigs available.

Insects Promising for Control of Alligatorweed, USDA Says

Several South American insects may be useful for alligatorweed control, according to a report from the U. S. Department of Agriculture. Alligatorweed is a costly aquatic pest in the South.

Research has shown insects can be pitted against weeds with effective results, USDA scientists say. In the western U.S., for example, a beetle imported from France successfully controls the noxious Klamath weed, which once infested millions of acres of rangeland.

Especially promising for alligatorweed control is a flea beetle that apparently was successful in Argentina. This beetle is not known to feed on any plant other than alligatorweed and its one close relative, a plant not found in the U. S.

Two other insects: a stem borer, and a species of thrips, are the chief suppressors of alligatorweed in the extreme South, where temperatures may be too high for the flea beetle.

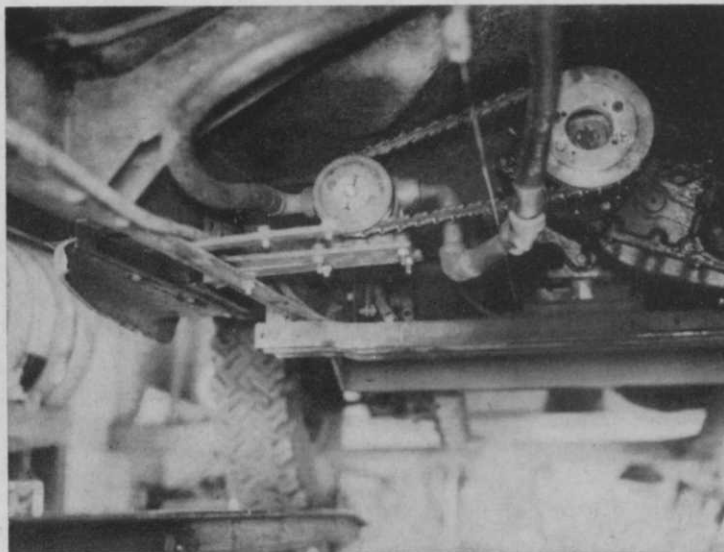
At least two years of work will be needed in South America, scientists from USDA's Agricultural Research Service admit, before any native weed-destroying insects can be brought into the U.S.

This additional research will include: (1) further screening to make sure flea beetles don't hurt beneficial plants or attack stored foodstuffs; (2) isolation of the beetle from two natural parasite enemies — a fungus and a small fly — so it can be sent here free of parasites; and (3) adjustment of the beetle to U.S. seasons, which are of course the opposite of those in South America.

Alligatorweed, a native plant of South America, is potentially one of the most troublesome aquatic weeds of the southern states. Resistance to certain herbicides has complicated control measures.

Roberts Bulletins Available

Several brochures on Herbisan 5, Thiram, and other weed and turf chemicals manufactured by Roberts Chemicals, Inc., are now available to weed and turfmen. For copies of them, write Roberts at Nitro, W. Va.



Author Pelletier says his Jeep power take-off (upper right-hand corner) is efficient and a real timesaver. The Hypro pump is driven by a link belt. Note $\frac{3}{4}$ " feed lines on both sides of the pump.