

Land-to-Land Sewage - Way To Meet Fertilizer Shortage?

With a fertilizer shortage threatening farm production next year, it is time to take seriously proposals for using municipal sewage on our farmlands.

Using sewage to increase crop yields has been practiced for centuries in different parts of the world. And today, with our crowded cities facing the need to build more and more expensive sewage disposal facilities, we become more tempted to revert to old time solutions.

Currently, most American farmers depend on commercial fertilizers. But devaluation of the

dollar and a real or contrived fuel shortage has cut down on our fertilizer supply.

Sen. Hubert Humphrey (D-Minn.) talked about the heavy exports of fertilizers recently. He remarked that devaluation of the dollar has made American products a good buy for foreign countries. The problem, he said, is that fertilizer has been leaving the country at too fast a rate and, as a result, he predicted a shortage of 20 million tons of grains in next year's crops.

Commercial fertilizer production also suffered from

this year's fuel shortages. These nitrogen compounds require heat for production.

The dwindling supply, of course, has meant increasing prices for fertilizer. So farmers are caught in the double evil of short supply and high production expenses.

One of the benefits of "sewage farming" is that more low cost fertilizer is available. In Pennsylvania, there have been reports of a number of farmers who have taken the initiative and contracted with municipalities to haul sludge to their fields.

Another benefit proven on Pennsylvania State University test plots is that fields irrigated with sewage effluent produced yields up to twice as great as the conventional plot dependent on rainfall for moisture.

A third benefit accrues to the city dweller whose taxes constantly rise to support sophisticated multi-billion dollar sewage disposal plants.

Wisconsin state Sen. Douglas LaFollette, recently presented the case of land-to-land sewage very well.

"As a conservationist and a state senator," he said, "I want to suggest a new method of sewage treatment which curbs pollution and gives the farmer an important role in solving this problem of America's urban society."

"I am suggesting land-to-land sewage — a method of sewage

treatment which eliminates most pollution due to sewage, increases crop yields, and is more economical for us all in the long run."

LaFollette explained that under the land-to-land process, "the sewage from a community after initial treatment is gathered in large settling lagoons from where it is pumped to fertilize and to irrigate cultivated fields."

Resistance to this type of fertilization is based on fears of damaging ground water supplies in nearby areas.

However, LaFollette notes that widespread use of this method in Europe since the 19th century and on the deserts of Israel has shown that certain soils function as natural water purifiers.

He claims that in most areas adequate acreage of suitable land is available to handle liquid sewage. In proper soil, he says, a chemical reaction reduces the contaminates by 68 to 82 percent within the first 12 inches of penetration by the liquid sewage. And by the time the liquid reaches the water table, it is totally purified.

One of the things to be careful about with this method is the

contamination of land by heavy metals or chemical poisons from industry. But this can be solved by forbidding the dumping of industrial wastes into the sewer systems of cities.

Projections of costs by planners indicates that construction of land-to-land sewage plants is considerably cheaper than expanding the chemical methods now being employed. It has been estimated that the annual per-capita expense needed for land-to-land sewage to take care of the needs of a city the size of Chicago is \$47.10 compared to \$74.80 for physical-chemical treatment.

Considering the economies this system will provide to both farmers and city dwellers, it would seem land-to-land sewage treatment merits prime attention.

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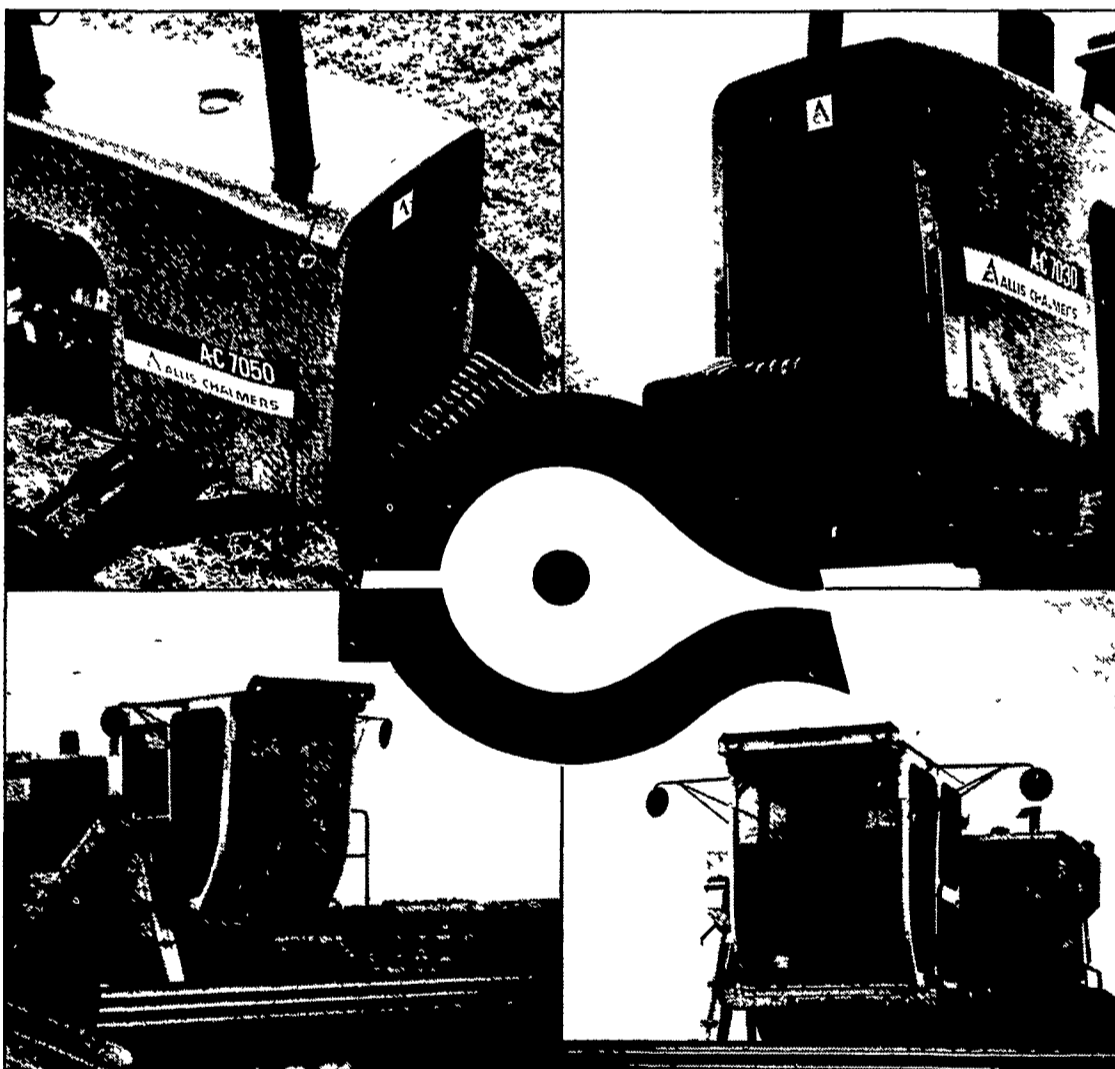
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