

# Don't waste waste, recycle it, says agronomy professor

By Liz Austin

The saying "waste not, want not" has been around for a long time and has been consistently ignored, but it has come to the point where people are being wasteful with waste itself, according to a UNL specialist in waste management and recycling.

Dr. Leon Chesnin, UNL professor of agronomy, said this can be changed. Through his research at the UNL Field Laboratory at Mead and through work in Falls City, he has developed a highly efficient way of producing organic fertilizer from sewage sludge, and feedlot manure and slaughterhouse waste.

Land fills are the usual means of waste disposal. Waste deposited in a land fill must be covered daily with soil. Waste is about 90 percent water so paper products must be used in the fill to absorb this water.

Theoretically, this inert and stable land can be used again when completely filled, Chesnin said. But the recent explosion at the Denver landfill has shown that an explosive gas, methane, is produced in the landfill. This makes the land useless unless costly measures are taken to get rid of the methane.

### Disposal to recycling

The federal government has an annual \$4.2 billion budget for improvement of waste disposal systems, Chesnin noted. Nebraska's share is \$22.8 million and the state must match that with \$7.6 million from state and local taxes.

"You get the impression that perhaps

we are giving more than we are receiving," Chesnin said.

Instead of putting so much money into the concept of waste disposal, emphasis should be switched to the concept of waste recycling, Chesnin said. Recycling waste into a fertilizer is a money and energy saver in practically every way, he said.

Sewage waste would be applied to Nebraska cropland as a fertilizer after going through a composting process, Chesnin said.

Composting is the microbiological decomposition of organic materials such as sewage sludge, manure, crop residue, sawdust and leaves. Composting kills the diseased organisms and weed seeds in the original waste and leaves the nutrients in a concentrated form.

As a fertilizer the compost builds up the organic matter in the soil and increases the soil's ability to retain water more than commercial fertilizers, he explained.

### Absorbent

At the Mead Field Laboratory a mixture of filtered sewage from Fremont and crop residue were composted and used as crop fertilizer. Twice during the last eight years the laboratory had over four inches of overnight rainfall. Both times the plots with the natural fertilizers absorbed all the water while the plots with commercial fertilizer absorbed almost none, Chesnin said.

This elimination of the surface runoff of rain and snow would lower the incidents of flooding and the resulting costs and would reduce the investments cost of irrigation

equipment and operation, Chesnin pointed out.

In Falls City, untreated sewage sludge was combined with sawdust and composted, Chesnin said. The diseased organisms in the waste were killed in four weeks of composting and the resulting cost was about \$3 for a finished ton of compost as compared with about \$25 a ton to bury waste in a land fill, he said.

The use of the organic compost also was found to reduce the soil's density, Chesnin said. With a lower density it takes less tractor fuel to work the soil, he added.

### Ideal situation

Nebraska is in ideal situation for composting of waste because there are very few metal plating or smelting industries in the state which produce toxic wastes, Chesnin said. Industries that do have to dispose of toxic metals are required by state law to pretreat wastes.

But those states where wastes are highly toxic also can benefit from composting, Chesnin said. Composting reduces waste to about one-fourth of its original size and therefore would reduce the amount of the land fill required for disposal, he said.

Since the compost has no odor and doesn't attract flies or insects, it would not have to be covered with soil daily, Chesnin said. Composting reduces the water content of waste to 20 percent so paper products would no longer be required to absorb the water, he said.

Overall it would reduce the operation cost of land fills, Chesnin said.

Chesnin said as a result of his research,

Kearney, Falls City, Beatrice and Gibbon have adopted sewage composting programs and Hastings will initiate one soon. Lincoln and Omaha are seriously considering adopting such a program, he added.

If these cities adopt the programs then Nebraska would become the number one state in composting and recycling of sewage wastes, Chesnin said.

## daily nebraskan

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## short stuff

The Greek Week Dinner Exchange will be tonight at 5:30 p.m. in all Greek houses.

The Cornstock marshalls will meet at 9 p.m. in the East Union. Room number will be posted.

The UPC Concert Committee will meet at 4 p.m. Tuesday in the Union. Room number will be posted.

The UPC Special Events Committee will sponsor a dance workshop at 7 p.m. in the East Union Great Plains Room.

Space applications for the Nebraska Unions are available in both Unions administrative offices. Deadline for submission is 5 p.m. April 20 in Nebraska Union 220.

## calendar

9:30 a.m.—CAP Staff, Room 216.

12:30 p.m.—NUPIRG, Main Lounge.

3:30 p.m.—Chess Club, Harvest Room C.

3:30 p.m.—Booster Yell Squad, Conference rooms.

3:30 p.m.—UPC-City Human Potentials, Room 216.

6 p.m.—Greek Week Exchange Dinner Reception, Centennial Room.

7 p.m.—Circle K, Room 243.

7 p.m.—Table Tennis Club, Conference Rooms.

7 p.m.—Delta Sigma Pi Execs., Room 232.

7 p.m.—Phi Kappa Psi, Room 343.

7:30 p.m.—Eckankar, Room 216.

7:30 p.m.—Math Counselors, Room 225.

7:30 p.m.—Delta Sigma Pi, Room 232.

8 p.m.—UPC-City Showcase "Tell Tale Poe," Ballroom.

9:30 p.m.—IES-Neligh Trip, Room 203.

## TAKE NOTE OF THESE . . .

UPC - East Happenings

20th Century Fox presents  
**M.A.S.H.** An Ingo Preminger Production  
Starring DONALD SUTHERLAND · ELLIOTT GOULD · TOM SKERRITT  
Co-Starring SALLY KELLERMAN · ROBERT DUVALL · JO VAN PELLE · RENE AUBERJOURD  
Produced by INGO PREMINGER Directed by ROBERT ALTMAN Screenplay by RING LARDNER, Jr.  
From a novel by RICHARD HOODER Music by JERRY MANDEL  
Color by DE LUXE® PANAVISION®  
ORIGINAL SOUNDTRACK RECORDING ON COLUMBIA RECORDS

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East Campus  
Great Plains Room

Sunday, April 22,  
7:30

Admission \$1.50 or \$1.00  
with M.A.S.H. costume



# cornstock

FREE  
CONCERT

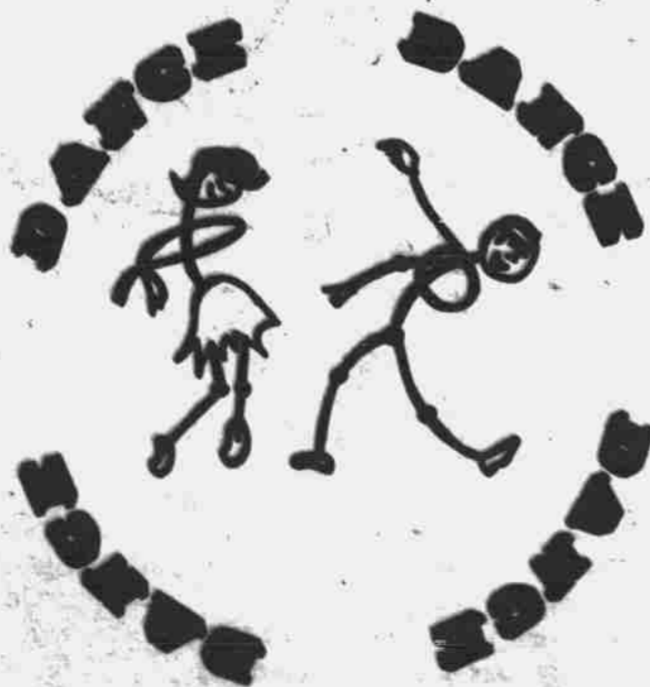
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12:30 - 5:30

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Sour Mash



GREAT PLAINS ROOM  
EAST UNION

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