

grass a day before they had time to eat other food."

#### HEAT AS PRESERVATIVE.

Schnabel related he began trying to preserve the grass by sun-drying on a tar paper roof. Finally, he turned to the oven, and at last the furnace. Bundles of grass were dried in screen trays over the hot air registers. For three years the Schnabel furnace was turned on in the spring and early summer. He obtained about one to five pounds a day by these crude methods.

For three years Schnabel attempted to interest feed companies in his discovery without success. In 1935 he went to see Lynwood H. Smith, president of the American Dairies, Inc., about borrowing a vacuum pan for condensing grass juice. Smith became interested in the experiment and decided to back him.

Cerophyl Laboratories, Inc., was formed. It now has 150 employees and markets a poultry food and a pharmaceutical preparation. Dr. W. R. Graham, 35 years old, with a degree from Toronto university, directs a staff of twenty-five in laboratory experiments. He had done independent research, finding that black mice developed gray hair if denied certain grass vitamins.

#### GRASS JUICE FACTOR.

Dr. George A. Kohler, 29 years old, joined the staff in 1938 after working out a Ph. D. in biochemistry at the University of Wisconsin on the mysterious "grass juice factor," as yet unidentified. The three collaborated on a paper given before the American Chemical society last year on the high vitamin concentration in young grass. The Quaker Oats company recently bought a half interest in the company.

The company operates farms in the Kaw valley, near Lawrence, Kas., in the Rio Grande valley of Texas, and at Wallaceburg, Ontario. The grass is grown on rich soil, sprayed regularly, cut with a special machine and rushed to the dehydrator and heated to 1,600 degrees. It then is shipped and made into pellets.

You have Schnabel's word for it that grass is so full of vitamins they haven't all been identified. Twelve pounds of dried, unjointed grass contains more vitamins than 340 pounds of vegetables and fruits—more than the average person eats in a year.

Research has shown the unjointed grass rich in all the vitamins ranging from A, B, B-1, and down through the alphabet, with the exception of D, supplied by sunlight. The chemists speak of nicotinic acid, carotene, riboflavin, thiamin and newer terms such as cholic acid and the grass juice factor.

It is Schnabel's hope that grass will be a standard American supplement to the diet, cutting the nation's food bill. One ounce a day is equal to nine ounces of spinach and lettuce, he contends. Samples have been ferried to England by bomber for experimental work on foods. Research now is going ahead toward adding grass to your breakfast foods, milk and other products.

"People have got to get over thinking grass is cow food," Schnabel says hopefully.