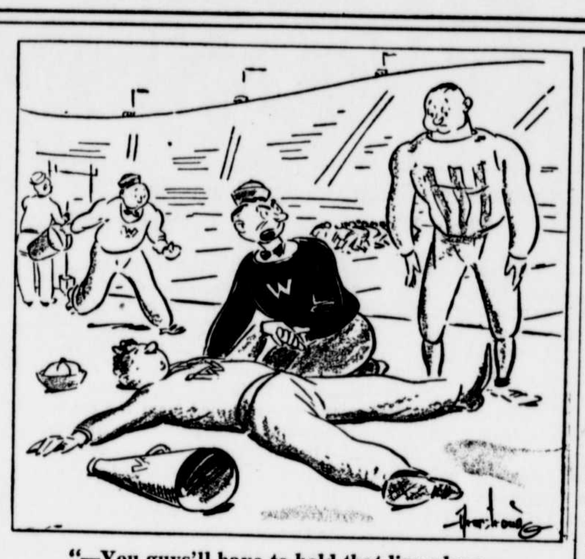
THE SUNNY SIDE OF LIFE

Clean Comics That Will Amuse Both Old and Young

THE SPORTING THING

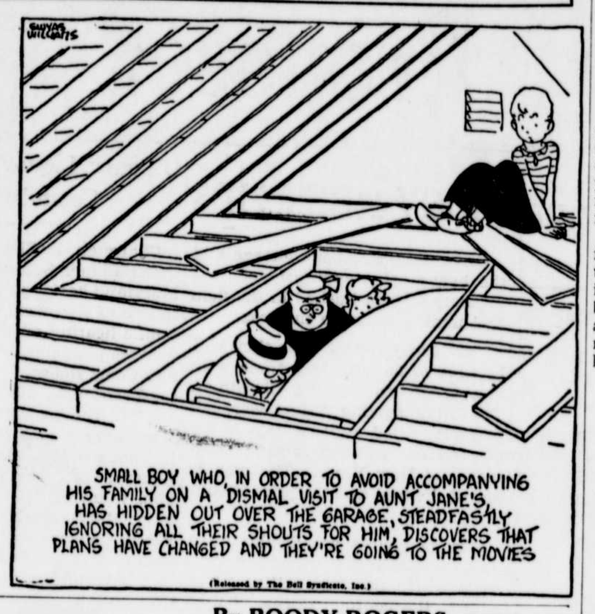
By LANG ARMSTRONG



"—You guys'll have to hold that line alone—the yell leader is all wore out!"

The World at Its Worst

By GLUYAS WILLIAMS



SPARKY WATTS

By BOODY ROGERS

LALA PALOOZA —A Hasty Exit

By RUBE GOLDBERG

REG'LAR FELLERS—Assistant Cook

By GENE BYRNES

RAISING KANE—Such as New York Cuts?

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Livestock, Poultry Feeds Need Proteins

Best Closely Resemble Type in Animal Tissue

Livestock and poultry feeds must contain proteins, but there are great differences in proteins from animal and vegetable sources. The best proteins for feeds are those which most closely resemble the proteins in animal tissue.

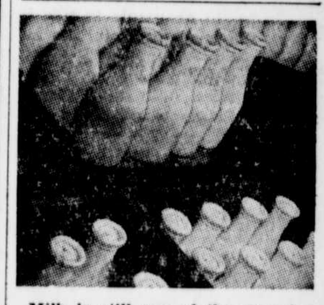
The essential factors in protein feeds are amino acids, and 22 of these acids have been isolated and identified from natural feeds. It is believed that at least 10 of these 22 amino acids must be available in a ration for the proper nutrition of livestock or poultry.

Some feed stuffs lack so many of the essential 10 amino acids that those feeds must be supplemented by others to supply missing acids. Deficient proteins have to be changed over in the digestive processes before they can be used, so a pound of protein which contains most of the essential acids is worth more money than a pound of protein that is partially wasted in being changed to an available form.

Animal proteins, such as are present in tankage and in fish meal, are better for livestock and poultry feeding than are vegetable proteins derived from grains or seeds.

Protein from properly processed soybean oil meal appears to stand at the head of the list of vegetable proteins, but the nutriton specialists say it is best to use two or three different vegetable proteins so that one supplements the other in furnishing amino acids. Peanut meal and corn gluten meal lack too many amino acids to be used as substitutes for animal proteins.

Cattle and other ruminants can be properly fed with less complete proteins than can either swine or poultry. Swine on good pasture can be fed on vegetable proteins only, but animal proteins should be in the ration for swine in dry lots.



Milk is still one of the very important foods needed in everyone's diet. Here it is leaving the bottling room of a Dushore, Pa., dairy on its way to hard-working war workers.

Agriculture in Industry

By FLORENCE C. WEED

Apples

New non-food uses are being sought by apple men so that a market can be kept for all the apples raised in this country. From pulp and peel comes pectin, that gelatinous substance which makes jelly. When extracted from apples and bottled in liquid form, it is sold to housewives to be added to other fruit juices to make them "jell."

Scientists also are trying to find a method to produce apple juice that will not cloud on standing.

Studies are being made to find ways to recover wax from apple skins to use in stencil sheets and water proof coatings. Apple seed oils also are being investigated. Cider is always a staple crop.

New industrial uses for apples are expected to develop as soon as improved methods can be discovered for drying pomace and waste products. This would permit indefinite storage and remove valuable material from being a nuisance.

Although there are only half as many apple trees in the country as 30 years ago, the apple crop has declined only 8 per cent because poor trees have been removed and good trees made to produce more fruit.

Agricultural Notes

Ohio agricultural agents have a supply of leaflets describing how to build outdoor storages for fruits and vegetables.

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Price ceilings on scrap metals set by OPA will not be raised, according to OPA officials. There will be no profit n hoarding—only a loss of self respect by anyone gambling for personal gain at the expense of the common effort to win the war.