Treated. The dogs receiving mucin and cincophen reacted quite differently as a group. All had some diarrhea during the first 2 weeks; one-half of them had a bloody diarrhea during this period. Five of them (Dogs 1, 3, 6, 7, 8) had some diarrhea and anorexia intermittently throughout the experimental period. The remainder after the first 2 weeks were apparently unaffected. Five even gained weight. Of the 11 dogs in which the experiment was completed, only 2 developed ulcer, or 18%, in contrast to the 100% incidence of ulcer in the control or untreated group. (Table II.)

The histology of the liver and kidney of both groups of animals is being studied by Dr. T. P. Churchill, Pathologist.

Conclusion. The administration of gastric mucin is markedly effective in preventing the gastro-duodenal ulcer and "acute" toxicity of cincophen in dogs.

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Dextrose Yield of Glycinin.

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Since soy bean foods have been found to be useful in the diabetic dietary,[1] it was thought desirable to determine the dextrose conversion of soy bean protein.

Glycinin, a specific globulin, which constitutes 90-95% of the protein of the soy bean,[2] was prepared by a new method, since older methods were found to be tedious. Commercial soy bean flour was freed of fat by ether extraction. The residue was then suspended in water at a pH of 2-3, filtered, and the dissolved glycinin precipitated at its isoelectric point by adjusting the reaction to pH 4.7. The flocculent precipitate was washed with distilled water, redissolved at pH 2-3, filtered, and reprecipitated at pH 4.7. After washing, the precipitate was dried with alcohol and ether. This preparation contains 15.56% nitrogen, 5.5% moisture, 0.82% ash, and gives a negative Molisch test for carbohydrate.

Glucose yields were obtained on completely phlorizinized dogs, using the method applied by Janney[3] to the determination of glucose

[1] Friedenwald and Rurah, *J. Am. Med. Sci.*, 1910, **140**, 793.

[2] Osborne and Campbell, *J. Am. Chem. Soc.*, 1898, **20**, 419.

[3] Janney, *J. Biol. Chem.*, 1915, **20**, 321.

yields of other proteins. As a check on the method the yield of casein was also determined.

The average of 8 determinations of the glucose yield of glycinin, obtained on 5 dogs was 61%. The average of 11 determinations on 4 animals gave a glucose yield of 49% for casein, a figure which compares favorably with Janney's previous report of 48%.

TABLE I.

Protein	Total Known Amino Acids %	Total Glycogenic Amino Acids %	Glycogenic Amino Acids as % of Total %	Dextrose Derived from Glycogenic Amino Acids gm.	Dextrose as % of Total Amino Acid %	Exper. Yield %
Casein	95.1	52.8	55.6	36.8	39.1	49
Zein	103.4	58.0	56.5	41.2	43.9	53*
Gelatin	93.5	75.8	81.1	56.9	60.8	65*
Edestin	101.8	60.7	59.6	39.8	39.1	65*
Gliadin	99.0	72.9	73.6	48.1	50.0	80*

*As determined by Janney.[3]

It was found in the case of casein, zein, gelatin, edestin, and gliadin, proteins whose amino acid analyses are fairly complete, that there was a slight correlation between the experimental yield, and the percentage of sugar-forming amino acids in their molecules. A theoretical yield for each of these proteins was arrived at by calculating the total sugar-forming carbon in the glycogenic amino acids and converting this into terms of dextrose. This procedure gives the total amount of glucose which could be formed by the individual glycogenic amino acids. Theoretical yields calculated in this manner failed to show any correlation with the experimental yields. In every case they fell short of the experimental yields by amounts which were not related to the incompleteness of the protein analysis. This latter conclusion is based on the observation that by expressing the sugar produced by the amino acids as a percentage of the known amino acids the correlation with the experimental yields is not improved. There is no evidence to indicate whether this discrepancy is due to imperfect amino acid analyses or to the inadequacy of the phlorizinized dog as a subject for the determination of dextrose yields.

Conclusions. (1) The dextrose yield of glycinin is 61%; (2) confirming a previous report, that of casein is 49%; (3) the dextrose yield of a protein cannot be predicted by calculating the amount of dextrose which the component glycogenic amino acids are capable of forming in the animal organism.