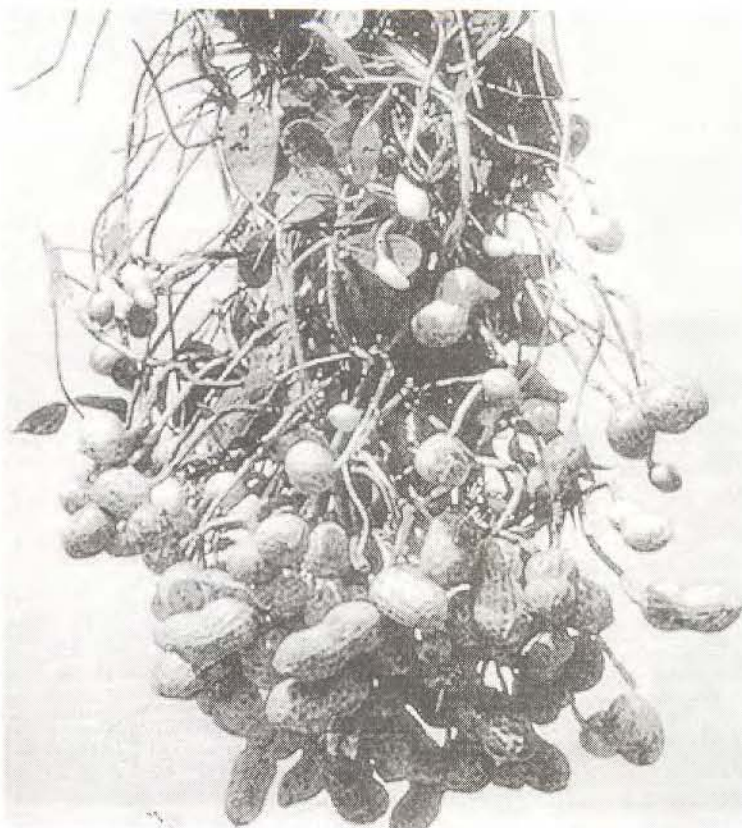


Gypsum increases yield of groundnut

Gypsum is a calcium sulphate mineral found in nature. It occurs as layers interbedded between limestones, shales and sandstones. In India deposits of gypsum occur in Kashmir, Himachal Pradesh, Punjab, Uttar Pradesh, Rajasthan, Kutch and Andhra Pradesh. Gypsum is utilized in the manufacture of ammonium sulphate and other fertilizers.

Scientists at Krishi Vigyan Kendra, Malyal, Andhra Pradesh conducted a study to know the effectiveness of application of gypsum @500 kg/ha to groundnut crop. During the experiment 105 fields of groundnut were selected and at the 35-40 days after the sowing of crop i.e. first initiation of flowering, gypsum was applied at the rate of 100 kg/plot (half an acre).

The yield was increased significantly (2.48 qt/ha) and the weight of kernels and pods was also more than the control. Further, it was also observed that there was reduction in the incidence of diseases like *tikka*, rust and collar rot [Singh & Hussain, *Andhra Agric J*, 2001, **48** (1 & 2), 96-97].



Groundnut plant

Rice starch as a partial casein substitute in imitated cheese

The increasing cost and consumption has prompted many industries to search for alternatives of various food materials especially oil and fat products. Cheese is a costly product and now-a-days it is preferred because of its nutritional quality. Attempts to reduce cheese costs have led to the development of imitation cheese based on casein and its derivatives and the use of vegetable fat to replace the more costly milk fat.

Several researches have been done to find out vegetable proteins as casein substitutes, such as peanut, cottonseed and soy protein isolates but not much success was achieved. Instead of proteins use of starches as casein substitute in imitation cheese have also been studied and patented. Mounsey and O' Riordan in Ireland studied the effects of 3% native maize, potato, waxy-maize, wheat or rice starches on the rheology, meltability and microstructure of imitation cheese and compared with the control (0% starch). Fat globules in starch-containing products (except potato) were smaller than in the control as evidenced by electron microscopy. All starches reduced meltability and cohesiveness of the imitation cheese. Hardness was increased by wheat, potato or maize starch but reduced by waxy-maize or rice starch. Rice (*Oryza sativa* Linn.) starch appears to have most potential as a partial casein substitute in imitation cheese. Rice starch with its small granule size, relatively low amylose content and limited swelling capacity had the least effect on the imitation cheese melt and resulted in products with acceptable rheological properties. Thus rice starch could be used as a low-cost partial casein replacer in imitation cheese (Mounsey & O' Riordan, *J Food Sci*, 2001, **66**, 586-591).