

Catsup is rather to be regarded as a condiment, i.e., a seasoning for food than as a food proper; for which reason a consideration of the total nutriment derivable from the article would be out of place. The value of a catsup is to be judged rather by its palatability, its effectiveness as a stimulant to appetite, than by its nutritive quality.

If however, tomato catsup derive, in any degree, its value from the actual amount of fruit spices and other solid matters used in its production, there is room for astonishment at the great variability in dry solids found in the 75 samples now reported. The total solid matter varies from less than 5 per cent (No. 1349) to above 30 per cent. (Nos. 45089 and 43782) of the weight of the article. The mineral solids (chiefly salt) vary from 0.68 per cent to 3.82 per cent.

Bulletin No. 129 (Dec. 1906) contains a report upon 49 samples of tomato catsup, and in these a variation of from 7.44 p.c. to 29.04 p.c., was noted in total solids; while the mineral matter (ash) varied from 1.60 to .66 per cent. It is worthy of note that the highest ash is not found in those samples which give highest total solid matter.

Under the regulations made in conformity with the Pure Food Law of the United States, catsup is defined as "The clean, sound product, made from the properly prepared pulp of clean, sound, fresh, ripe tomatoes, with spices, and with or without sugar and vinegar."

This definition is very incomplete, inasmuch as it contains nothing quantitative. It would seem reasonable to insist upon a certain minimum amount of fruit, and perhaps of spices, in catsup. The definition quoted possesses, however, one important and valuable feature, in that it insists upon the pulp being clean and sound, and prepared from clean, sound, fresh and ripe fruit. Many convictions have been obtained against manufacturers whose catsup has been found mouldy, rotten or swarming with bacteria. (See notices of judgment 156, 388, &c.). But even here there is a difficulty, since an absolutely sterile catsup is practically impossible. It would seem well to fix upon a bacterial limit, beyond which the article would be illegal. Section 3 (e) of our Adulteration Act is quite as precise as the definition above quoted.

All of the 75 samples reported were found to be in good condition, and free from moulds or decay.

Three (3) samples contained salicylic acid as a preservative; forty-six (46) contained benzoic acid, and six (6) contained sulphurous acid or sulphites. These last were, of course, artificially coloured.

Coal tar dyes were found in 54 cases. There is no greater objection to harmless colouring matter in catsup than in candy. But a suspicion naturally arises that the colour may be used to conceal inferiority in the article, since it is well known that the use of fresh and ripe tomatoes renders a dye unnecessary; and in fact, some of the most attractively coloured samples herein reported were found to be free from dyes.

The question of fixing a standard for tomato catsup must receive consideration in due course; and a collection to supplement that herein reported, will be made as soon as work in hand permits.

This report is belated, for reasons already given. The work contained in it belongs to the fiscal year ending March 31, 1911.

I beg to recommend its publication as Bulletin 224.

I have the honour to be, sir,

Your obedient servant,

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