The suggestion is offered that the presence of *Nicotiana rustica* in the vicinity of Bernalillo in 1934 and 1936 as reported by Professor White may have been due to its rather recent introduction by the white man. In 1925 a commercial development was undertaken for the production of *Nicotiana rustica* for nicotine in the upper Rio Grande Valley. In 1927 several hundred growers were reported engaged in the production of the species on plots ranging from fractions of an acre to 8 or 10 acres. Most of the growers were located north of Albuquerque, and more than 200 acres were reported grown in 1927. This project was developed and managed by Mr. R. G. Mewborne, of the Consumers Tobacco Company of Albuquerque, New Mexico, and continued through 1929.[2]

Between 1926 and 1929 the writer was also interested in the experimental production of nicotine in the Rio Grande Valley and had plots grown near Albuquerque, Las Lunas and Las Cruces, New Mexico. Several varieties of *Nicotiana rustica* were grown, although brazilia was the one used in the general commercial production.

During the period of 1925 to 1929 rustica plants and, no doubt, seeds as well, were easily available in the upper Rio Grande Valley, and it is suggested that the presence of the rustica plants near Bernalillo might well be traced to the wide-spread development which was attempted in that area between 1925 and 1929.

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A NOTE ON THE DETERMINATION OF THIAMINE BY THE YEAST FERMENTATION METHOD

IN a recent issue of SCIENCE[1] a paper on thiamine determination contained the following paragraph:

> Bunzell's difficulties recall the experience of Smythe, who, observing a remarkable stimulation of fermentation due to an extract of bull testicle, finally isolated ammonium chloride as the active factor. Smythe made the additional mistake of obtaining his yeast from the small cakes sold in grocery stores. Such yeast is too rich in thiamin to show any stimulation of fermentation when thiamin is added to the medium.

This curious paragraph contains both misstatements of fact and false implications so a correction is considered necessary. My paper[2] was not concerned with the determination of thiamin. It was concerned with finding out why the extracts in question stimulated fermentation when thiamin did not stimulate. Consequently, it was neither a mistake nor an additional mistake to use a yeast rich in thiamin. It clearly would have been a mistake to use a yeast in which thiamin was not present in excess.

Although ammonium chloride was isolated and shown to stimulate fermentation under certain conditions by as much as 100 per cent., the activity of the extracts was not found to be due solely or even chiefly to the ammonium chloride contained in them. From the chemical behavior of the extracts it was suggested that the activity was due to amino acid amides—free and combined. In accord with this suggestion glutamine and asparagine were shown actively to stimulate fermentation. d-Arginine also was found to be an active stimulator. As stated in the paper[2] an accelerating effect of ammonium salts on fermentation had been established as long ago as 1926,[3] but an accelerating effect (as distinct from a growth effect) for the other compounds mentioned had not been established as far as I am aware.

The above results were presented at a symposium held at Gibson Island in August, 1938,[4] and appeared in the February, 1939, issue of *Enzymologia*.[2] It is interesting to note that the first published account of the thiamin fermentation method to properly define the principle and limitations of the analysis was sent to press in May, 1939.[5] The fact that asparagine and arginine (along with some other less active amino acid compounds) stimulate fermentation was published by the same authors as new information in September, 1939,[6] and is cited by them in their recent paper as showing that various amino acids, etc., have an effect equivalent to ammonium ions.

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EXCEPTIONAL BURIAL IN CALIFORNIA

DURING excavations carried on by the Santa Barbara Museum of Natural History, a unique burial was uncovered on Mescalitan Island, an old Indian site, near Santa Barbara, California. This find is outstanding among burials of the west coast.

The skeleton of a small adult, age 30–35, lay in the conventional face-down flexed position of the Canaliño (Chumash), but upon the highly inlaid scapula of a whale. The scapula had served as a slab, or a coffin without top or sides, and measured 46½ inches transversely and 30 inches proximo-distally. The spine had been planed off with stone tools, forming a perfectly flat surface upon which the skeleton lay. Around the superior border a narrow groove was cut and in this,

[2] R. G. Mewborne, "Tobacco as a New Industry for New Mexico," New Mexico State Planning Board, Santa Fe, 1936.
[1] A. S. Schultz, L. Atkin and C. N. Frey, SCIENCE, 94: 212, 1941.
[2] C. V. Smythe, *Enzymologia*, 6: 9, 1939.
[3] H. Zeller, *Biochem. Zeits.*, 175: 135, 1926.
[4] SCIENCE, 88: 9, 1938.
[5] L. Atkin, A. S. Schultz and C. N. Frey, *Jour. Biol. Chem.*, 129: 471, 1939.
[6] A. S. Schultz, L. Atkin and C. N. Frey, *Cereal Chem.*, 16: 648, 1939.