

The results of a number of experiments are shown in the following table:

No. of assay.	Date of assay.	Weight of animal in kilos.	Dose per kilo in cc.	Total dose administered in cc.	Results.
1	Jan. 24	6.78	0.040	0.27	Positive
2	Jan. 31	6.48	0.030	0.19	Positive
3	Feb. 7	6.35	0.020	0.13	Negative
4	Feb. 11	6.61	0.0295	0.20	Positive
5	Feb. 18	6.72	0.0250	0.17	Negative
6	Feb. 21	6.41	0.0270	0.18	Negative
7	Feb. 28	6.15	0.0285	0.18	Negative
8	Mar. 20	6.54	0.0290	0.18	Positive
9	Mar. 27	6.81	0.0280	0.19	Negative
10	Mar. 31	7.37	0.0290	0.22	Positive
11	Apr. 3	6.69	0.0290	0.20	Positive
12	Apr. 7	6.74	0.0290	0.20	Positive
13	Apr. 17	7.15	0.0285	0.20	Negative
14	Apr. 21	7.03	0.0290	0.20	Negative
15	Apr. 24	7.03	0.0295	0.20	Negative
16	Apr. 28	7.06	0.030	0.21	Negative
17	May 5	6.92	0.030	0.20	Positive

The animal after a succession of doses of the preparation administered at short intervals developed a certain temporary tolerance, but when the interval was again lengthened to one week, the tolerance apparently wore off.

These experiments seem to show that a more definite end-point in the determination of muscular incoördination, and, therefore, a more exact estimation of the effective dose of cannabis preparations, can be determined by this method than the one in the Pharmacopœia.

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SWEETENING EFFECT OF AMMONIA ON FLUIDEXTRACT OF LICORICE.*

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Independent investigations conducted during the last few years have quite conclusively shown that the use of ammonia in the extraction or preparation of fluidextract or extract of licorice is not only unnecessary but that it produces undesirable effects of gelatinization and precipitation.

By eliminating ammonia, the preparation, from a standpoint of physical elegance, was undoubtedly improved and manufacturing difficulties removed, but some doubt was entertained as to the effect the elimination of ammonia would have on the taste.

In order to observe if ammonia added to fluidextract of licorice aided in producing a sweeter or better tasting preparation, the following experiments were made:

To each of three 50-cc. quantities of fluidextract licorice was added ammonia water 28%—0.25 cc., 0.5 cc., and 1 cc., respectively.

These 3 samples, together with a sample of the same fluidextract to which no ammonia had been added, were marked arbitrarily and submitted to several people with request that they express their preference as to flavor or taste.

* Section on Practical Pharmacy and Dispensing, A. Ph. A., Buffalo meeting, 1924.

A striking contrast to the usual attempt to obtain reliable opinion on organoleptic properties resulted, the unanimous opinion being that no one was better than another.

As a further test, the same samples were diluted with water to obtain a 1-10 dilution, and submitted to other individuals for taste. The opinion obtained on the diluted product substantiated the former expression on undiluted fluidextract.

On this basis it is concluded that ammonia does not enhance the taste value of a fluidextract of licorice.

In passing, it may be interesting to note that the degree of precipitation in the above-prepared samples is directly proportional to the amount of ammonia added.

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AN EXPERIMENT IN EXTRACTION.*

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INTRODUCTION.

The purpose of these experiments is to determine whether or not the method named by the authors, the displacement method, can be used advantageously in the process of extraction. This method has for its aim the obtaining of an increased amount of extractive with the use of a decreased amount of menstruum, without the application of heat. The method depends upon the use of a long column percolator, small in diameter, through which ordinary percolation reaches its maximum efficiency and, further, assuming that after twenty-five per cent. of percolate is collected (considering now the preparation of fluidextracts), the next seventy-five per cent. is partly saturated with extractive matter and, therefore, capable of becoming more saturated by repercolation through the same drug.

The details of the displacement process follow those given by the Pharmacopœia in the manufacture of fluidextracts, so far as packing and maceration are concerned; however, the stratum of menstruum above the column of drug is reduced to a minimum. Twenty-five per cent. of the percolate is collected and set aside as a reserve, then three portions of 25 cc. each are collected and considered as stronger percolates 1, 2, 3, respectively. The drug now contains weaker percolates 1, 2, 3 and a total of 100% percolate has been collected. Stronger percolate No. 1 is now poured slowly upon the surface of the column of drug, allowing one portion to become completely absorbed before adding the next; thus 25% of weak percolate is forced out of the drug and collected as weak percolate No. 1. Likewise stronger percolates No. 2 and No. 3 are made to displace weaker percolates No. 2 and No. 3 and the drug now contains all of the stronger percolate, which is assumed to be unsaturated and, therefore, capable of further extracting the drug. This strong percolate is displaced by adding weaker portions Nos. 1, 2, 3, respectively, and collecting the strong percolate displaced corresponding to 75% of the drug. This percolate is added to the reserve and thus 1 cc. of percolate is obtained for each gram of drug used.

* Section on Practical Pharmacy and Dispensing, A. Ph. A., Buffalo meeting, 1924.