the most useful combination of tests for this purpose.

Chromatography, in its various forms, has proved an almost indispensable tool in pesticide work. For many years column chromatography has proved to be almost the only method of separating impurities in the final clean-up process prior to the final assessment. Column chromatography was also used very successfully for separating macro quantities of different chlorinated hydrocarbon pesticides.

Paper chromatography has proved invaluable for the separation and estimation of traces of chlorinated hydrocarbon and phosphorus pesticides.

A major advance was made in this work when gas liquid chromatography, using electron capture ionisation detection, was introduced for the estimation of chlorinated hydrocarbon pesticides and it is to be hoped that, by suitable modifications of this, it will become applicable to the detection and determination of the phosphorus compounds. One of the great advantages of this new technique is that considerably less clean-up is required than for other forms of estimation.

Final mention may be made of vitamins which are now frequently added to foodstuffs to reinforce the natural vitamins in a number of foodstuffs. Under our Labelling of Food Order where claims for the presence of vitamins are made, the manufacturer must declare on the label the amount of such additions per ounce of the foodstuff. Modern analytical chemistry, employing the newer physical methods, now enables the analyst to determine all additives of this nature, vitamin D being the only exception.

The successful control of additives clearly depends on the skill of the analytical chemist and he, in turn, must rely on modern instrumentation and physical methods for the detection and determination of the ever-increasing variety of materials which are now used as food additives. END ■