SUMMARY

Out of the Strychnos species growing in India, Strychnos potatorum Linn. f. has been investigated. The seeds, bark and leaves of the species have been studied.

The extractives have been determined in different parts of the plant and tested for several organic constituents. This preliminary testing indicated particularly the presence of alkaloids, triterpenoids and sterols. The ash estimation in the seeds has also been done.

The physical and chemical characteristics of the seed oil have been determined. The fatty acid composition has been studied by GLC. From the unsaponifiable matter of the seed oil some triterpenoids and sterols have been isolated. The isolated triterpenes have been found to be of amyrin and lupeol series on the basis of interpretation of infrared, nuclear magnetic resonance and mass spectral data. The sterol material is found to be composed of sitosterol and stigmasterol.

The alkaloidal composition of the seeds, bark and leaves have been investigated by TLC and GLC. Diaboline has been found as the major alkaloid occurring in all the three parts of the plant together with minor amounts of acetyldiaboline,
brucine, brucine $N$-oxide, strychnine, strychnine $N$-oxide, pseudostrychnine, vomicine, icajine and novacine in the seeds; acetyldiaboline, brucine $N$-oxide, strychnine $N$-oxide, pseudostrychnine, pseudobrucine, vomicine and icajine in the bark; and acetyldiaboline, brucine $N$-oxide, strychnine $N$-oxide, pseudostrychnine, pseudobrucine, vomicine and icajine in the leaves. The identity of diaboline has been confirmed by its isolation in pure form as hydrochloride and study of infrared, nuclear magnetic resonance and mass spectra of the base.

The alkaloidal fractions obtained from the seeds, bark and leaves have been studied for their general pharmacological actions. Diaboline has been studied for its effects on cardiovascular system. The fractions exhibit marked convulsant, hypotensive and cardiac depressant properties. Diaboline also has hypotensive effect which appears to be due to central action.