symptoms, but the multiplication of the antigen in them can readily be identified by serological tests or by electron microscopy. This antigen has also been transmitted to some other species of plants; however, the only one in which it has caused any symptoms, and so justifies calling it a virus, is sugar beet, the older leaves of which sometimes become yellow.

Some of the properties of the virus *in vitro* have been measured by making serological tests on the sap extracted from sweet william plants a month after they were inoculated. Sap from sweet william loses infectivity when diluted more than 1/1,000, the thermal inactivation end-point is between 60° and 65° C., and the longevity *in vitro* at 20° C. is between two and three days. Sap from the infected sweet william plants contains rod-shaped particles, about 10 mμ wide and of varying lengths. These particles closely resemble those previously described in King Edward plants carrying potato paracrinkle virus, which like the carnation virus can infect a range of plants without causing symptoms[1]. Because of these similarities, sap from various potato varieties was tested for its ability to precipitate specifically with the antiserum prepared against the carnation virus. These tests showed that many apparently healthy stocks of potato contain an antigen related to the latent carnation virus. This was not confined to the variety King Edward, which carries potato paracrinkle virus, but was found in plants of the varieties Gladstone, Craig's Alliance, Majestic, Arran Victory, Epicure and U.S. Seedling 41956. Too few tests have yet been made to know how widespread is this virus in potato stocks, but its occurrence in most of the plants already tested suggests that it must be fairly common. In this respect, at least, it resembles a virus recently reported from Holland that is carried symptomlessly by most potato varieties[2].

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Steroidal Sapogenins in Amazonian Plants

The relatively simple method of analysis recently described by Wall, Eddy, McClennan and Klumpp[1] for the analysis of plant samples for steroidal sapogenins inspired me to search for them in the rich Amazonian flora. Dr. João Murça Pires, chief of the Botanical Section of this Institute, collected various plant samples which might contain steroidal sapogenins. The results of analysis are given in the accompanying table. Every plant analysed contains more than 0·2 per cent sapogenins. Some of the plants occur in Amazonia in abundance. The 'aninga' (*Montrichardia arborescens*), for example, is growing so luxuriantly on the banks of the rivers that sometimes the plants represent real obstacles to navigation.

Further work is in progress, and search continues for steroidal sapogenins, which will be identified spectrophotometrically[2]. The results will be published in full elsewhere.

Amazonian Plants containing Steroidal Sapogenins

Family	Scientific name	Part	Sapogenins calculated on absolutely dry material (per cent)
Alismaceae	*Sagittaria* sp.	leaves	0·74
Amarylidaceae	*Fourcroya*	leaves	0·83
,,	*Smilax* sp.	tubers	0·47
		roots	0·50
Araceae	*Montrichardia arborescens*	leaves	0·69
		stalks	0·69
Bignoniaceae	*Jacaranda copaia*	bast	0·43
Connaraceae	*Rourea ligulata*	leaves	0·59
		twigs	0·46
Convolvulaceae	*Ipomoea fistulosa*	twigs	0·29
Dioscoreacea	*Dioscorea* sp.	tubers	1·65
Iridaceae	*Eleutherina plicata*	leaves	0·54
		tubers	0·68
Leguminosae	*Clitoria javitensis*	leaves	1·29
		roots	1·10
,,	*Derris latifolia*	leaves	0·75
		roots	0·64
,,	*Derris negrensis*	leaves	1·69
		twigs	0·84
,,	*Derris pterocarpa*	leaves	0·80
		roots	0·91
,,	*Derris reviflora*	leaves	1·28
		roots	1·16
,,	*Derris urucú*	leaves	0·57
		roots	0·97
,,	*Derris utilis*	leaves	0·49
		roots	0·73
,,	*Pithecolobium cauliflorum*	bast	2·31
Malphigiaceae	*Stigmaphyllon fulgens*	leaves	0·43
		twigs	0·51
,,	*Mascagnia sepium*	leaves	0·24
		twigs	
Malphioceae	*Banisteria caapi*	leaves	0·57
		twigs	0·66
Sapindaceae	*Sapindus saponaria*	fruit-pulp	1·05

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[1] Wall, M. E., Eddy, C. R., McClennan, M. L., and Klumpp, M. E., *Anal. Chem.*, **24**, 1337 (1952).

[2] Cf. Eddy, C. R., Wall, M. E., and Klumpp Scott, M. E., *Anal. Chem.*, **25**, 266 (1953).

Observations on the Iodo-Amino-Acids of Marine Algae using Iodine-131

Iodine has been reported to occur in marine algae as inorganic iodide and iodo-tyrosines[1]. Both forms are known to produce artefacts under chromatographic examination[2,3]. It therefore appeared desirable to examine the chemical stability of the iodine atoms in iodo-amino-acids and their exchangeability with radioactive iodide under the conditions of hydrolysis with barium hydroxide before attempting to investigate the metabolism of iodine fixation in the algae.

The chemical stability of the compounds was found by comparing chromatograms of the substances remaining after barium hydroxide treatment with those of the starting materials, the acids being made visible by spraying with ninhydrin. The exchangeability of the iodine atoms was determined by autoradiography. If simple exchange occurred, radio-