3260, 1025 (OH), 1595 (Ar-C=C). Oxidation of suchilactone with alkaline KMnO₄ furnished piperonylic and veratric acids. This is the first demonstration of the natural occurrence of this lactonic lignan.

Chisulactone. The second lignan, obtained as a minor entity (57 mg) from the preparative TLC, had m.p. 108-110°C, C₃₁H₂₂O₆ (two OMe, one methylenedioxy, no C-CMe or active H); [α] β -72.6° (c 0.58, CHCl₃); it showed colour reactions, UV, IR and PMR spectra similar to those of suchilactone; significant difference was observed in the MS: m/e 368 (M⁺, 4%), fragment ion peaks at m/e 233 (9%, from the loss of piperonyl moiety from the molecular ion), 203 (12%, loss of CH₃O from the fragment ion m/e 233), m/e 174 (17%), and the dominant peak at m/e 135 (100%). The compound seems to be a new lactonic lignan and the structure will be the subject of a later communication.

EtOH extract. The EtOH extract was concentrated to a small volume and then worked up following a method described⁵ for oxygenated xanthones. The product obtained from the CHCl₃-soluble acetates was chromatographed over neutral alumina (activity ca. III) and eluted with C₆H₆, C₆H₆-CHCl₃ (1:1), and CHCl₃. Evaporation of the C₆H₆-CHCl₃ eluates followed by crystallization from MeOH-CHCl₃ afforded yellow needles (32 mg.) identified as helioxanthin⁴ (m.p., colour reactions, UV, IR, PMR, MS). The co-occurrence of the unsaturated acyclic lignans suchilactone and chisulactone with their cyclic analogue, helioxanthin, in P. chinensis is biogenetically significant since acyclic unsaturated lignans are regarded as the precursors of aryltetralins and arylnaphtalenes.

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Schneid\textsuperscript{1} were also isolated from the wood of western and American mountain ash, \textit{S. scopulina} Greene, and \textit{S. americana} Marsh. Sitosterol and its esters with palmitic, oleic, linoleic and linolenic acids were also isolated. The presence of a leucoanthocyanidin was indicated. The aucuparins appear to be characteristic wood constituents of the genus \textit{Sorbus}.\textsuperscript{2}

**EXPERIMENTAL**

\textit{Plants.} \textit{Sorbus scopulina} Green, from the Dominion Experimental Station, Morden, Manitoba and \textit{Sorbus americana} Marsh, from the Forest Nursery Station, Indian Head, Saskatchewan.

\textit{Wood.} Free from bark, milled and acetone extracted (24 hr). Divided into neutrals, acids and water-solubles.\textsuperscript{1} Neutral fraction gave sitosterol, m.p. 138–139\degree C and its fatty acid esters; GLC analysis after saponification and methylation: palmitic, oleic, linoleic and linolenic acids in ratio 2:1:5:2. From acidic fraction aucuparin, m.p. 101\degree C, and methoxyaucuparin, m.p. 122\degree C, were isolated; acetates m.p. 148–149\degree C and 119\degree C resp.; from water-soluble fraction lyoniside, m.p. 164–165\degree C, \([\alpha]_D^{25} +41.5\). In one experiment with wood extract of \textit{S. decora}\textsuperscript{1} the lower melting form,\textsuperscript{2} m.p. 121–122\degree C, \([\alpha]_D^{25} +41.2\), was obtained. Recrystallization and seeding the latter with the high melting form gave the xylloside m.p. 164–165\degree C; thus the latter is the more stable crystalline form. The residues from the aucuparin fractions gave a positive leucoanthocyanidin test.

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\textsuperscript{2} ERDTMAN, H. personal communication.