

superiority over those obtained from colouring-matters which suffer decomposition when oxidized in a similar manner.

—	Chromium.	Aluminium.	Tin.	Iron.
<i>Vitex littoralis</i>	Dull yellow, slight green tint	Dull yellow, slightly pale	Pale lemon-yellow	Dull grey-brown.
Weld ..	Full brown-yellow	Bright yellow ..	Pale yellow	Deep brown-olive.
Old fustic	„	Yellow olive ..	„	Ditto.

Barger\* (1906) has subsequently found vitexin in the products of the hydrolysis of saponarin from *Saponaria officinalis*, and with Perkin's collaboration compared the tinctorial properties of vitexin from both sources. Barger also studied the constitution of vitexin, which he says seems to belong to a new class of colouring-matters closely allied to the flavone group. The present economic importance of the puriri is that it has been suggested by Professor Easterfield, of Wellington, as a source of khaki dye for military material, in place of old fustic.

*Avicennia officinalis* (New Zealand Mangrove).—Mr. E. Phillips Turner, of Wellington, sent the author 10 lb. of the bark of this tree in November, 1915, but no trace of tannin could be found, a result which was in accordance with its lack of astringent taste. The author consulted Sir D. Prain (Kew), Mr. Maiden (Sydney), and Mr. Baker (Technological Museum, Sydney) regarding this somewhat remarkable absence of tannin, considering the statements which have been made regarding the tannin-content of *Avicennia*, and even of *A. officinalis* in other countries. Baker† (1915), who gives a list of these references, finds that the bark on the Australian plant is so thin, the quantity of bark and the percentage of tannin so small, that it would never pay to use it for tanning purposes. All three of these authorities suggest that there is considerable confusion in the references to mangroves in literature, and one suggests that the New Zealand plant may yet have to be classified under a name distinct from *A. officinalis*. *Avicennia africana*‡ from Southern Nigeria has been found to contain from 12.5 to 19.8 per cent. of tannin. No mention of *Avicennia* as a source of tannin is made by such authorities as Allen§ (1901), Thorpe|| (1913), or Philippine Islands workers¶ (1911), who, however, mention other genera of mangroves as being

\* Saponarin: a new glucoside coloured blue with iodine. Trans. Chem. Soc. London, Vol. lxxxix. † "The Australian Grey Mangrove, *Avicennia officinalis*." Proc. Roy. Soc. N.S.W., Vol. xlix. ‡ Bull. Imp. Inst., 1913. § "Commercial Organic Analysis," Vol. iii, Pt. I. || "Dictionary of Applied Chemistry," Vol. v. ¶ "Economic Possibilities of the Mangrove Swamps of the Philippine Islands." P.I. Journ. Science, Vol. vi.