

ABSTRACTS FROM THE ORIGINAL ARTICLES.

ON SOURCES OF POTASH IN FORMOSA.

By **Manroku Yatsugi.**

The author has examined the several ashes for the sources of Potash in Formosa. The results obtained are as follows :

	Potash (K ₂ O) (%)	Sulphuric acid (SO ₃) (%)	Chlorine (Cl) (%)	Carbonic acid (CO ₂) (%)
Ash of tobacco-refuse (of the island) ..	18.45	6.55	14.47	
Ash of tobacco-refuse (of China)	35.56	3.05	17.30	
Ash of bagasse.....	1.94-10.87	0.97-4.27	0.-0.28	0.-0.68
Ash of molasses	35.53	18.98	9.93	
Ash of alcohol-waste, from molasses ..	41.23	22.91	10.78	4.16
Ash of fruit banana (<i>Musa Sapientum</i> L.)-Stalk	18.14	1.89	9.93	7.90
Ash of wild banana (<i>Musa Paradiaca</i> L.)-Stalk	56.23	1.73	9.93	13.69
Ash of <i>Alpina Metans Rose</i>	23.56	3.37	7.66	5.60
Kinyu i.e. lixiviation-liquor of ash of plant-refuses	30.25	—	5.85	9.53
Kintō i.e. raw crystals from Kinyu....	59.76	1.58	4.26	20.73
Ash of <i>Eichhornia paniculata Spreng.</i>	32.44	2.37	23.83	8.33

From the above figures and their quantities, Kinyu and Kintō obtained especially from wild-banana stalk, and the tobacco-refuse from the Monopoly Bureau, Government of Formosa, will be noticed as the chief sources of potash in the island.

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ON SEAWEEDS.

By **Kisaburo Miyama.** *Kōgakuhakushi.*

Near the seacoast of Japan, there are many kinds of seaweeds, especially *laminaria* and *arthrothamnus*.

In Yezo, different species of *laminaria* and *arthrothamnus* are collected as eatables and an important material of iodine in a large quantity; and manufacturing of potassium salts as a by-product is very common.

Cost of potassium chloride is less than four pounds per ton. Iodine contents of *laminaria* and *arthrothamnus* are the largest among the Japanese seaweeds; for an example, dried *Arthrothamnus Bifidus Rupr* contains 0.6 % of iodine.

Excellent material of iodine are *Brthrothamnus Bifidus Rupr.*, *Arthrothamnus Kurilensis Rupr.*, *Laminaria Coreacea Miyabe*, *Kjellmaniella Gyrata Miyabe* and *Ecklonia Cava Okam.*:

Near the seacoast of *Karafuto* (Saghalin), there are as abundant seaweeds as in Yezo, and they are equally rich in iodine.

In the inland *Ecklonia Cava*, and *Ecklonia bicyclis* are commonly used as a material of iodine.

Kelp made from seaweeds in Japan is not porous, but obviously over-roasted.

The author's experiment shows that when roasted three hours at 75°C, seaweeds lose no iodine, but when roasted three hours at 750°C they lose 12.5 % of their iodine content.

At present, Japan produces 1700 tons of potassium salts, that is only a quarter of her total consumption of the salts; but it is liable that production of the salts will exceed 6000 tons, if seaweeds of Yezo and Karafuto are well utilized.