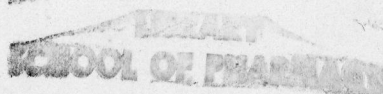


A BIBLIOGRAPHY OF INSECT FLOWERS

by

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A Thesis Submitted for the Degree of
Bachelor of Science
(Pharmacy)

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BIBLIOGRAPHY

- Browne, D. 1857
Persian Insect Powder.
U.S. Pat. Off. Rep., 1857, p. 129. (Drugg. Circ., 4, p. 135.)
Discusses the botanical source, synonyms, habitat,
and the preparation of Persian insect powder.
- Moodt, P. 1858
Das caucasische Insektenpulver.
Buchner's N. Rep., 7, p. 562. (Am. Jour. Pharm., 31,
p. 373; Proc. Am. Pharm. Assoc., 8, p. 55; Drugg. Circ., 3,
p. 113.)
Gives a history of the plant, native names, where
grown, and uses.
- Abel, J. 1860
Insect Powder.
Am. Jour. Pharm., 32, p. 520. (Drugg. Circ., 5, p. 14.)
Discusses the history and uses of insect powder.
- Hanamann, J. 1863
Ueber das persische Insektenpulver.
Wittstein's Vierteljahresschrift, 12, p. 26. (Prakt. Pharm.
12, p. 522; (Anstatt's Jahresber. d. Pharm., 23, p. 22; Nat.
Disp., 1 Ed., p. 1192; Pharm. Jour. 41, p. 359.)
The active constituent of insect flowers is a volatile
oil. Describes the oil as to physical, chemical and physi-
ological properties.

Koch, K. 1863

Die Wirkung des persischen Insektenpulvers.

Jahrb. d. Pharm., 20, p. 155 (Drugg. Circ., 8, p. 185.)

Discusses active constituents of Persian insect powder.

(Editor) 1867

Insect Powder.

Drugg. Circ., 11, p. 250.

In reply to an inquiry of G.W.F. gives an account of 2 sources of pyrethrum.

Jagor, F. 1868

(Insect Powder.)

Sketches of Travels in Singapore, p.---.(Drugg. Circ., 12, p. 60; Ibid. 13, p. 35.)

(Discusses the use of insect powder in combatting insect pests in the tropics.)

Garrigues, S. 1871

On Insect Powder.

Proc. Am. Pharm. A., 19, p. 505.

Describes the action of insect powder on insects. Gives a simple test for potency of the powder. Other genera besides Pyrethrum and Chrysanthemum are reported to possess insecticidal properties.

(Editor) 1874

For the Destruction of Insects of All Kinds.

Drugg. Circ., 18, p. 67.

In reply to an inquiry of In Sect, the use of vegetable or Persian Insect Powder is advised.

Kalbruner, H.

1874

Ueber die insektenvertielgende Wirkung einiger Pyrethrum Arten.

Zeitschr. d. Osterr. allgem. Apoth. Vereins, 12, p. 542. (Jahresb. uber d. Fortschr. d. Pharm., 34, p. 83; Pharm. Centrhl., 3, p. 22; Proc. Am. Pharm. Assoc., 23, pp. 166 7 523.)

Discusses the potency of the several species of the flowers when tested with flies, reporting the worth-while species as contrasted with the useless ones. Various adulterants are also listed.

Landerer, K.

1875

Notes on Some Oriental Plants and Vegetable Products.

Am. Jour. Pharm. 47, p. 498. (Proc. Am. Pharm. Assoc., 24, p. 418.)

The adulteration of insect powder with flowers of *Anthemis cotula*, *Chrysanthemum segetum*, *Matricaria Charnomilla* and other plants is reported.

de Bellesme, J.

1876

(Sur un alcaloide du Pyrethrum Carneum.)

Jour. d. conn. med., ---, p. 9---. (Am. Jour. Pharm., 49, p. 17; Journ. d. Pharm. e.d. Chim., 103, p. 139; Pharm. Jour. 36, p. 172; Ibid, 41, p. 359; Ibid., 58, p. 505; Proc. Am. Pharm. Assoc., 25, p. 157; Pharm. Zeitsch. f. Russ., 29, p.209.)

The poisonous properties of insect powder are not due to an alkaloid but to a crystalline principle considered to be a glucoside.

(Editor)

1876

Persian Insect Powder.

Drugg. Circ., 20, p.193.

In reply to an inquiry of G.H.B., discusses the habitat of insect powder.

Rother, R.

1876

Persian Insect Powder.

Drugg. Circ., 20, p. 118; (Pharm. Jour., 36, pp. 72&172; Ibid., 58, p. 505; Pharm. Zeitsch. f. Russ., 29, p. 209; Pharm. Centrhl., 19, p. 74; Archiv. d. Pharm., 12, p.78; Am. Jour. Pharm., 53, p. 491.)

The active constituents of insect flowers are said to be an oleovesinous acid, "persicein," another acid, "perspiretin," and an active glucoside.

Trapp, J.

1876

Bestandteile des Insektenpulvers.

Pharm. Zeitsch. f. Russ., 15, p. 326. (Ibid., 29, p. 210.)

Obtained a liquid from insect powder similar in many respects to an alkaloid. Gives several chemical reactions of the liquid.

del Sie, G.

1878

Sur le principe actif de la poudre insecticide.

Soc. Chim. d. Paris, 31, p. 542. (Proc. Am. Pharm. Assoc., 28, p. 147; Am. Jour. Pharm., 52, p. 14; Ztschr. d. Allg. st. Apoth. Ver., 17, p. 390; Pharm. Centrhl., 20, p.3; Pharm. Zeit. j. Russ., p. 209.)

Considers a volatile acid to be the active constituent of Pyrethrum. Discusses the other constituents in a general way.

(Editor)

1878

Adulteration of Insect Powder.

Drugg. Circ., 22, p. 141.

Describes the true insect powder and its more common adulterants.

Hager, H.

1878

Ueber den insecticidischen Bestandtheil der
Bluthen von Pyrethrum carneum und roseum.Pharm. Centrhl., 19, p. 74. (Pharm. Zeit. f. Russ., 29,
p. 209.)

He reports the constituents of the flowers of the above 2 species are very different from those given by Rother. Chemical analyses of the 2 constituents are more clearly defined.

Carpenter, W.

1879

Experiments with Pyrethrum Roseum in Killing
Insects.Am. N at., 8, p. 176. (Am. Jour. Pharm. 51, p. 246; Proc.
Am. Pharm. Assoc., 27, p. 177.)

Discusses the time required for Persian insect powder to kill insects of various kinds.

Saunders, W.

1879

Insect Powder.

Canadian Entomologist, 11, p. 41. (Am. Jour. Pharm. 51,
p. 243; Proc. Am. Pharm., Assoc., 27, p. 176.)

A review of the insecticidal properties of insect flowers and related plants of the same family. Concludes that those plants of the genera chrysanthemum and Pyrethrum are effective against insects to any marked degree.

- Hager, H. 1880
 (Todten von Insekten.)
 Bayr. Industr. u. Gewerbebl., 1880, p. 212.
 Pharm. Centrhl., 21, p. 269.
 (Reports the results of experiments with live insects to test the killing power of insect powder.)
- (Editor) 1881
 How to Burn Insect Powder.
 Drugg. Circ., 25, p.9.
 In reply to an inquiry of A.S.H. describes a procedure for burning insect powder for the killing of insects.
- Textor, O. 1881
 The Examination of Persian Insect Powder for Its Active Principle.
 Am. Jour. Pharm., 53, p. 491.
 Reports the results of an examination of the constituents of pyrethrum roseum and P. Cinerarfolium to determine their physical and chemical natures.
- Riley, E. 1882
 Pyrethrum Insect Powder.
 Drugg. Circ., 16, p. 82.
 Discusses very comprehensively the use and preparation of Pyrethrum species as insecticides.
- Conroy, M. 1883
 Insect Powder and Insect Flowers.
 Pharm. Jour., 42, p. 869.

Bright yellow and light yellow Pyrethrum from *Pyrethrum cinerariaefolium*, the former imported and the latter domestically ground. Hints at the adulteration of the foreign powder with chrome yellow, and the use of opened flowers.

Henderson, P. 1883

Cultivation of Persian Insect Powder.

New Rem., 12, p. 14. (Proc. Am. Pharm. Assoc., 31, p. 129.)

Plants of *Pyrethrum roseum* are easily raised from seeds or cuttings in fresh, dry siliceous earth.

Howie, W. 1883

Coloured Insect Powder.

Chem. & Drugg., 25, p. 225. (Drugg. Circ., 27, p. 116.)

Discusses the color of insect powder as means of disclosing adulterations.

Klein, M. 1885

Insect Powder.

Proc. Am. Pharm. Assoc., 33, p. 366.

Gives the comparative monetary values of insect flowers during the current fiscal year and also the amounts imported.

(Editor) 1887

Poisoning by Insect Powder.

(Drugg. Circ., 31, p. 243.)

Discusses the toxic effects of insect powder when ingested by man.

Unger, H. 1887

Flores Chrysanthemi.

Pharm. Zeit., 32, p. 685. (Ibid., 33, pp. 81, 131 & 166.
(Pharm. Post, 25, p. 18; Proc. Am. Pharm. Assoc., 41, p. 637.)

In a series of 4 articles discusses the physical and chemical properties of Pyrethrum flowers.

(Editor) 1888

The Care of Insect Powder.

Drugg. Circ., 32, p. 218.

Discusses the conditions of storage of the powder to retain its greatest potency and gives methods for use of the powder.

(Editor) 1888

Probably Dangerous.

Drugg. Circ., 32, p. 241.

Discusses the possibility of insect powder being poisonous to humans.

Fehling, H. 1888

Insectenpulver.

Realencyk. d. gesamm. Pharm., 1 Ed., V.5, p. 461.
Pharm. Post, 25, p. 18; Proc. Am. Pharm. Assoc., 41, p. 637.)

Discusses a crystalline chemical constituent of Pyrethrum.

Kirkby, A. 1888

Structure of Insect Flowers.

Pharm. Jour., 48, p. 239. (Pharm. Post, 25, p. 18; Proc.

Am. Pharm. Assoc., 41, p. 637.)

The histological character of the flower of chrysanthemum cinerariaefolium and Pyrethum roseum are given.

Marpmann, G. 1888

Ueber Insectenpulver and seine Verwendung als Fliegen todtendes Mittel.

Pharm. Centrhl. 29, p. 341. (Drugg. Circ., 32, p. 203.)

Discusses the use of an alcoholic extract of pyrthrum in combating flies and other insects.

Eccles, R. 1889

Non-Poisonous Roach Destroyers.

Drugg. Circ., 33, p. 219.

Discusses the use of insect flowers against ants, bed-bugs and roaches; other non-poisonous insecticides are also discussed.

(Editor) 1889

Adulterated Insect Flowers.

Drugg. Circ., 33, p. 81.

Mentions the use of daisies as an important adulterant of insect flowers.

(Editor) 1889

Insect Powder.

Drugg. Circ., 33, p. 231.

In reply to inquiry of G.V.W.B. insect powder and its botanical sources are discussed.

Hirschsohn, E.

1890

Beobachtungen über den wirksamen Bestandtheil des Insektenpulvers.

Pharm. Zeitsch. f. Russl., 29, pp. 209 & 488. (Pharm. Jour. 58, p. 505; Apoth. Zeit., 5, pp. 234 & 321; Jour. d. Pharm. f. Elsass. Loth., 17, p. 123; Drugg. Circ., 34, p. 203.)

The active constituents are listed as acidic substances called persicein, persiretin and persicin. Their solubilities in common solvents are given.

Marino-Zuco, F.

1890

(Sopra un nuovo alcaloide estratts dal cresentemo.)

Roma, R. Accademia dei Lincei Rendiconti, 6, p. 571. (Proc. Am. Pharm., Assoc. 40, p. 581; Roy. Soc. Catl. Sci. Pap., 17, p. 25, c.1.)

Reports a new alkaloid from Pyrethrum.

Marino-Zuco, F.

1891

(Sulla Crisantemina.)

Gazetta Chimica Italiana, 21, p. 516. (Proc. Am. Pharm. Assoc., 40, p. 581; Roy. Soc. Sci. Pap., 17, p. 25, C.1.)

A further discussion of the new alkaloid found in Pyrethrum.

Marino-Zuco, F.

1891

(Sulla Crisantemina.)

Roma, R. Accademia dei Lincei Rendiconte, 7, p. 121.

(Proc. Am. Pharm. Assoc. 40, p. 581; Roy. Soc. Catl. Sci. Pap., 17, p. 25, C.1.)

(The chemical constituents of insect powder are discussed, including possible proof of a new constituent, a glucoside.)

(Editor)

1891

Insect Flower Cultivation.

Drugg. Circ., 35, p. 184.

In reply to query of A.B.M. gives an account of the cultivation of Dalmation Pyrethrum.

Thompson, F.A.

1891

Insect Powders.

Pharm. Rec. p. 419. (Proc. Am. Pharm. Assoc., 40, p. 581.)

As a whole, insect powder is not adulterated, but sometimes chrome yellow (6-20%) and lead Chromate (6-20%) are added for bulk.

Reeb, E. & Schlagdenhauffen, M.

1891

Contribution a l'etude des Fleurs de Pyrethre.

Jour. d. Pharm. f. Als. Loth., 18, p. 229. (Pharm. Centhl. 52, p. 173,; Proc. Am. Pharm. Assoc., 59, p. 206.)

Discusses the chemical constituents of Pyrethrum flowers and after attempts to isolate them.

(Editor)

1892

Should Not Insect Powder be Labeled "Poison"?

Drugg. Circ., 36, p. 181.

Reprints an article by J.M.S. relative to the toxic effect of one tablespoonful of pyrethrum when taken internally.

Hanausek, T.

1892

Beitrage zur mikroskopischen charakteristische der Flores Chrysanthem.

Pharm. Post, 25, p. 18.

Discusses the histology of insect flowers with diagrams; solubility of active principles in water, acids, and various organic solvents; therapeutic uses of the flowers; the comparative activity of dry and fresh flowers. The presence of calcium oxalate crystals is noted.

(Editor)

1893

Insect Flower Cultivation.

Drugg. Circ., 37, p. 191.

Describes the cultivation and marketing of Dalmation insect flowers.

Malfatti, J.

1893

Ueber kaukasisches Insektenpulver.

Pharm. Post, 26, p. 165. (Proc. Am. Pharm. Assoc., 41, p. 637; Jahresber. d. Pharm., 53, p. 80.)

Describes the structure of *Chrysanthemum cinerariaefolium* flowers with sketches.

(Editor)

1894

Insect Stems.

Drugg. Circ., 38, p. 146.

Discusses in detail the evil of using stems of insect flowers as adulterant of insect flowers.

(Editor)

1894

(Production of Insect Flowers in the United States.)

Oil, Paint and Drug Reporter, --p.---; (Drugg. Circ., 38, p. 131.)

(Discusses the cultivation of and success of this cultivation in the United States.)

Hill, J.

1894

Dalmation Insect Powder Flowers.

Brit. & Col. Drugg., 25, p. 301. (Proc. Am. Pharm. Assoc., 42, p. 874.)

Discusses the value of 3 commercial grades of insect powders prepared from the closed, half-closed and open flowers respectively.

Jelliffe, S.

1895

The Adulteration of Insect Powder by the Addition of Powdered Stems.

Drugg. Circ., 39, p. 4, (Proc. Am. Pharm. Assoc., 43, p. 852.)

A detailed account with diagrams, to be followed in microscopical study of insect flowers to detect the presence of stems.

Wilder, H.

1895

Examination of Insect Powder.

Drugg. Circ., 39, p. 61.

Reports the results of using potassa as an aid in the microscopical examination of Insect Flowers.

Macowan, P.

1896

The Insect Powder Plant.

Drugg. Circ., 40, p. 216.

Gives a general description of insect flowers, their cultivation, habitat, and commercial importance.

Durrant, G.

1897

Insect Flowers of Commerce.

Pharm. Jour. 58, p. 505. (Proc. Am. Pharm. Assoc., 45, p. 506; Pharm. Jour. 75, p. 902; Proc. Am. Pharm. Assoc., 54, p. 752.)

A detailed discussion with references of the physical, chemical and toxic properties of insect flowers, with methods of analysis, recognition and detection of adulterations.

1898

(Insect Powders.)

Kew Bulletin, Misc. Information, No. 143, p. 297. (Pharm. Jour., 61, p. 505; Proc. Am. Pharm. Assoc., 47, p. 537.)

Insect powders produced in Caucasia, Dalmatia are effective against aphides, house flies and mosquitoes when blown with a bellows. Ineffective against insect eggs, hairy caterpillars and spiders of all kinds.

Marino-Zuco, F. & Bollo, V.

1899

(Sull'acido crisanteminico.)

Atti della Societa Ligustica di Scienze Naturali e Geografiche, 10, p. 37. (Proc. Am. Pharm. Assoc., 40, p.581; Roy. Soc. Cath. Sci. Pap., 17, p. 25, c.1.)

Describes the preparation of "crisanteminico" acid.

(Editor)

1900

Die Prufung von Insectenpulver.

Pharm. Post., 33, p. 746. (Proc. Am. Pharm. Assoc., 49, p. 697.)

Describes an improved method for the assay of Pyrethrum for its ether-soluble extract.

Collin, E.

1901

A Study of the Anatomy of Insect Flowers.

Pharm. Jour., 67, pp. 474, 503, & 601. (Proc. Am. Pharm. Assoc., 50, p. 840.)

Sketches of the different parts of the flower are drawn in detail to indicate the difference between the true insect flowers and the false; also discusses the differences.

"Ilex", Pennsylvania.

1903

Insect Destroyer.

Drugg. Circ., 47, p. 105.

Describes several methods and products used in destroying insects.

Jean, F.

1903

Analyse de poudres de pyrethre.

Ann. de Chim. Anal., 8, p. 285. (Chem. & Drugg., 63, p. 464; Proc. Am. Pharm. Assoc., 52, p. 673.)

Describes methods of qualitative analysis and lists the active constituents of Pyrethrum powder.

T.F.E.F. New York.

1903

Insect Destroyers.

Drugg. Circ., 47, p. 105.

Gives several formulas containing insect flowers said to be efficient against insects.

E.A.H.

1904

Warring on Bedbugs and Other Insect Pests.

Drugg. Circ., 48, p. 130.

Gives a lengthy discussion on battling with insects, with separate headings as to the substances to be used.

Niece, F.

1904

Profitable Preparations of Petroleum Products.

Pennsyl. Pharm. Assn., 27, p. 187. (Drugg. Cric., 49, p. 223.)

Gives a formula containing insect flowers said to be effective as an insect spray.

Coyle, A., & Mendax, T.

1905

Insecticides, Limited; A Detective Romance.

Drugg. Circ., 49, p. 10.

A satirical and humorous discussion of insecticides.

(Editor)

1905

Inefficiency of Naphthalin as an Insecticide.

Drugg. Circ., 49, p. 114.

States that naphthalene has little or no value as an insecticide.

E.P.M. Canada.

1905

Insection Animals and Plants.

Drugg. Circ., 49, p. 345.

Gives several formulas containing insect flowers said to be effective against various insects.

Gadd, H. & S.

1905

The Testing of Drugs, Chemicals, and Galenicals by Dispensing Chemists.

Pharm. Jour. 75, p. 901. (Pharm. Zeitg., 51, p. 109; Drugg. Circ., 50, p. 166.)

Gives method for detecting clerome yellow as an adulterant of insect powder.

Sato, S.

1905

New Experiments with Insect Flowers.

Jour. Of Pharm. Soc. of Japan, 1905, p. 766; (Pharm. Zeit., 50, p. 929.)

Discusses the possibility that the activity of insect powder is due to chemical rather than mechanical means.

(Editor)

1906

Insecticide for House Plants.

Drugg. Circ., 50, p. 473.

Gives a formula containing insect flowers for using on house plants to combat insect pests.

Fromme, G.

1906

Flores Chrysanthemi cinerarifolii.

Caesar & Loretz's Rep., 1906, p. 20, (Pharm. Ztg., 50, p. 771; Proc. Am. Pharm. Assoc., 54, p. 753.)

Gives a method for the determination of the ether-soluble constituents of insect powder.

C.W.W. Ohio

1907

Destruction of Insectson Plants.

Drugg. Circ., 51, p. 602.

Discusses the use of Pyrethrum and also gives several formulas containing it to combat insect pests.

(Editor)

1907

An Effective Lice Powder.

Bull. Pharm., 21, p. 250. (Proc. Am. Pharm. Assoc., 55, p. 680.)

The powder for lice contains powdered naphthalene 14 ounces and insect powder 2 ounces.

Sato, S.

1907

The active Constituents of Insect Powder.

J our. Pharm. Soc. Japan, 1907, p. 607. (Pharm. Zeitsch., 52, p. 689; Proc. Am. Pharm. Assoc., 56, p. 211.)

Reports on the active constituent of Pyrethrum flowers as a resin, which he named pyretol.

(Editor) 1908

To Keep Off Gnats and Other insects.

Drugg. Circ., 52, p. 372.

Gives a formula containing insect flowers as a repellent against gnats, midges, mosquitoes and the like.

Grieb, C. 1908

Valuation of Insect Powder.

Chem. & Drugg. 72, p. 848. (Proc. Am. Pharm. Assoc., 56, p. 211.)

Gives a method of determining the valuable oleoresin content of insect powder.

N.F. (Nebraska.) 1908

Formula for Insect Powder.

Drugg. Circ., 52, p. 430.

Says that Pyrethrum flowers are the best natural insect powder.

Fujitani, J. 1909

Beitrage zur Chemie und Pharmakologie des Insektenpulvers.

Arch. f. Exper. Psth. u. Pharmakol, 61, p. 47. (Proc. Am. Pharm. Assoc., 58, p. 191.)

Gives a detailed and lengthy discussion of insect flowers, including its action on the heart of a frog;

gives diagrams of heart action when extract is injected into the blood stream.

Reeb, E.

1909

Principes actifs de la poudre insecticide.

Jour. d. Pharm. f. Elas. Loth. 36, p. 267. (Pharm. Centrl. 52, p. 173; Proc. Am. Pharm. Assoc., 59, p. 206; Jour. Am. Pharm. Assoc., 1, p. 634.)

Confirms the results of the investigation of the chemical constituent made by Schlagdenhauffen & Reeb in 1891.

H.F.M. (Iowa & R.M. (Colorado)

1910

Insect Killers.

Drugg. Circ., 54, p. 2181.

Gives formulas containing insect flowers for insect killers, and discusses the efficiency of various insect killers.

(Editor)

1911

Compound Insect Powders.

Drugg. Circ., 55, p. 314.

Gives 2 formulas containing insect flowers said to be efficient against insects.

(Editor)

1911

Insect Destroyers.

Drugg. Circ., 55, p. 356.

In reply to a query containing insect flowers by T.S.C. (Ill.) gives formulas for the control of insect pests.

(Editor)

21.

1911

Insect Powder.

Drugg. Circ., 55, p. 28.

In reply to a query by E.J.C. (Penna.) comments on the odor of pyrethrum flowers.

(Editor)

1911

Persian or Dalmatian Insect Powder.

Drugg. Circ., 55, p. 479.

In a reply to I.E.B. (N.Y.) describes methods of distinguishing between Persian and Dalmatian Insect Powders.

(Editor)

1911

Popularizing an Insect Powder.

Drugg. Circ., 55, p. 285.

An interesting account of the advertising of an insect powder.

(Editor)

1911

Tenacious Insecticide Sprays.

Drugg. Circ., 55, p. 468.

Discusses the use of soap and saponins in making liquid insect sprays containing extract of insect flowers more tenacious.

(Editor)

1911

What is "Insect Powder?"

Drugg. Circ., 55, p. 579.

Gives a definite statement as to the botanical origin of insect powder, and the use of names when insect powder is referred to.

Gane, E.

1911

Insect Powder.

Drugg. Circ., 55, p. 518.

A brief statement to the effect that stems of the plant are used as an adulterant of insect powder.

Rusby, H. H.

1911

Insect Powder.

Drugg. Circ., 55, p. 518.

A short statement concerning the large importation of insect flower stems for the purpose of adulteration of insect powder.

(Editor)

1912

Disinfectant and Insecticide.

• Drugg. Circ., 56, p. 525.

Gives a formula containing insect flowers for a disinfectant and insecticide.

(Editor)

1913

Insect Powder.

Drugg. Circ., 57, p. 519.

In reply to H.G. P. (Quebec.) says that Pyrethrum Powder is a synonym for insect powders.

Kebler, L.F.

1913

Insect Flowers.

Jour. Am. Pharm. Assoc., 2, p. 1096.

Gives the ash and moisture content of insect flowers.

Siedler, P.

1913

(Cultivation of Insect Powder.)

Riedels Berichte, 52, p.---(Pharm. Zeit. 58, p. 328; Year Bk. Am. Pharm. Assoc., 2, p. 199.)

(Describes a method of cultivating insect flowers to obtain the highest potency. Adulteration of the flowers is included.)

Wiebelitz, H.

1913

(Ash Content of Insect Powder.)

Riedel's Berichte, 52, p.---(Pharm. Zeit. 58, p. 329; Yr. Bk. Am. Pharm. Assoc., 2, p. 200.)

The total ash content of insect flowers is reported as having been determined.

Barrus, M.

1914

The Relationship of the Business of the Local Druggist to the Sale of Insecticides and Fungicides.

New York Pharm. Assn., 36, p. 134. (Drugg. Circ., 58, p. 451.)

A detailed account of the part insecticides, including insect flowers, play in the pharmacy.

(Editor)

1915

Insecticide Sprays.

Drugg. Circ., 59, p. 436.

Gives 2 formulas used in killing insects, neither of which contain pyrethrum.

Siedler, P.

1915

Uber Chrysanthemum cinerariaefolium Trev.

Ver. d.d. Pharm. Ges. 25; p. 287. (Pharm. Zeit., 60, p. 249; Y.B. Am. Pharm. Assoc., 4, p. 119.)

The cultivation, morphology, and microscopical investigation of insect flowers are considered in detail.

Trottner, K.

1915

Beitrag zur Qualitätsbestimmung von Insektenpulver.

Arch. d. Pharm., 253, p. 119. (Yr. Bk. Am. Pharm. Assoc., 4, p. 119.)

Discusses various methods for the evaluation of insect flowers.

(Editor)

1916

Insect Powder.

Drugg. Circ., 60, p. 761.

In reply to a query by I.M.M. (N.Y.) discusses the increasing use of insect powder in the control of insects.

(Editor)

1917

Japanese Insect Powder.

Pharm. Jour. 99, p. 251. (Yr. Bk. Am. Pharm. A., 6, p. 204.)

Gives an account of the development of the trade in Japanese grown flowers due to the World War.

Gaillard, G. 1917
 Caractere chimique de la poudre de fleurs de
 pyrethre employee comme insecticide.
 L'Union Pharm., 58, p. 23, (Drugg. Circ , 61, p. 116.)
 Discusses method for identifying pyrethrum flowers
 by chemical means.

Holmes, E. 1917
 The Cultivation of the Insect Powder Plant.
 Pharm. Jour. 98, p. 6, (Yr.Bk. Am. Pharm. Assoc., 6, p. 204.)
 Discusses geographical and ecological habitats and the
 cultivation of insect flowers.

(Editor) 1918
 Japanese Insect-flowers.
 Chem. & Drugg., 90, p. 231. (Yr.Bk. Am. Pharm. A., 7,
 p. 258.)
 Discusses the war as a cause of the increased con-
 sumption of Japanese insect powder.

(Editor) 1918
 Moth Powder.
 Drugg. Circ., 59, p. 172.
 In reply to a query of H.G.Y. (Penna.) gives several
 formulas containing insect flowers for use against moths.

Faes, H. 1918
 Le Pyrethre etsa culture.

Schweiz, Apoth. Ztg., 56, p. 429. (Pharm. Jour. 101, p. 151; Yr.Bk. Am. Pharm. Assoc., 7, p. 259.)

Discusses the cultivation and commercial use of insect powder in Switzerland.

(Editor)

1919

Adulteration of Insect Powders.

Am. Drugg. 67, p. 36. (Yr.Bk.Am.Pharm. Assoc., 8, p. 239.)

States that other flowers are used as adulterants, and describes how these may be detected.

Yamamoto, --

1919

(Pyrethron in Insect Flowers.)

Jour. Tokyo Chem. Soc., 40, p.--; (Chem. & Drugg. 91, p. 76; Drugg. Circ., 61, p. 63; Ibid., 65, p. 141.)

Describes in detail the isolation and identification of Pyrethron in insect flowers.

(Editor)

1920

Insect Powders.

Drugg. Circ., 61, p. 60.

Gives 3 formulas for insect killing mixtures, containing insect flowers.

McDonnell, C., Roarck, R., & Keenan, G.

1920

Insect Powder.

U.S.Dept. Agric. Bull. 24.(Drugg. Circ., 63, p. 296.)

Discuss in detail the uses, method of preparation and constituents of the various species of insect powder.

Costa, D.

1922

Sulla polvere di crisantemo.

Giorn. di Chim. ind. et appl., 4, p.90. (Chem. Zentralhl. 43, p. 628; *Drugg. Dirc.*, 66, p. 488.)

Gives a method of extracting the active principles of insect powder and gives structural formulas for several of the individual constituents isolated.

Roark, R. & Keenan, G.

1922

Insect Powder Adulterated with Powdered Daisy Flowers.

Bull. U.S. Dept. Agric., no. 795, p.1. (Yr.Bk. Am. Pharm. Assoc., 11, p. 110. Ibid., 12, p. 120; Am. Jour. Pharm. 94, p. 498.)

States that insect powder is sophisticated with daisy flowers, and describes methods of detecting these impurities.

Standinger, H. & Ruzicka, L.

1924

Insektentotende Stoffe I. Uber Isolierung und Konstitution des Wirksamen Teiles des dalmotischer Insectenpulvers.

Helv. Chim. Act. 7, p. 177. (*Drugg. Circ.*, 68, p. 447; Pharm. Post., 60, p. 10.)

Discusses 2 new constituents isolated from Dalmation insect powder.

Juillet, A., & Diacono, H.

1925

(Oleoxesin of Chrysanthemum as a Parasiticide.)

Bull. Pharm. der Sud-Est. 29, p. 952. (Ibid. 30, p. 27; Yr. Bk. Am. Pharm. Assoc., 15, p. 136.)

(Discusses the use of CE1₄ as an extractant of the oleoresin of insect flowers, and various menstra for the application of the extract where needed.)

(Editor)

1926

Extract of Insect Flowers Against Body Lice.

Drugg. Circ., 70, p. 106; (Yr. Bk. Am. Pharm. A. 15, p. 65.)

The trichlorethylene extract of pyrethrum emulsified soap forms a very effective remedy for body vermin of all kinds.

(Editor)

1926

Insect Powder.

Natl. Drugg., 56, p. 460. (Yr. Bk. Am. Pharm. A., 15, p. 82.)

Gives a formula containing pyrethrum powder 8; guassia, in fine powder 1; licorice root 4; fennel 1; black pepper 4; linseed meal 7; caraway 1, which is said to be economical and effective.

(Editor)

1927

Disguising the Odor of Insect Powders.

Drugg. Circ., 71, p. 132.

In reply to a query of D.P. (Louisiana.) states that more data must be offered before a satisfactory process can be used.

(Editor)

1928

Des Pyrethrines.

L'Union Pharm., 69, p. 356. (Yr. Bk. Pharm. Assoc. 17, p. 855; Drugg. Circ., 73, p. 247.)

Discusses the chemical structure of the toxic principles of Pyrethrum, pyrethrin.

(Editor)

1928

Insect Sprays.

Drugg. Circ., 72, p. 264.

In reply to a query of M.S.H. (N.Y.) gives formulas for liquid insect sprays, containing insect powder.

(Editor)

1928

Japanese Insect Powder.

Chem. & Drugg. 109, p. 140. (Yr.Bk. Am. Pharm. Assoc., 17, p. 696.)

Describes the appearance of 3 types of insect flowers grown in Japan. The volume of trade carried out with this product is included with data.

(Editor)

1928

Liquid Pyrethrum Insecticide.

Drugg. Circ., 72, pp. 101.

In reply to a query of K.W.C. (Ohio) gives a formula for a liquid pyrethrum insecticide with comments.

(Editor)

1928

Yellow Color for Insecticide.

Drugg. Circ., 72, p. 21.

In reply to a query of S.H.S. (Georgia) recommends oil of tar or oil of amber to color liquid insect sprays not containing pyrethrum.

(Editor)

1929

Anti-insect Fumigating Pastilles.

Drugg. Circ., 73, p. 366.

Gives a formula for pastilles to be burnt for the control of insects.

Gnadinger, C. & Core, C.

1929

Studies on Pyrethrum Flowers. I. The Quantitative Determination of the Active Principles.

Jour. Am. Chem. Soc., 51, p. 3054.

Discusses the isolation of the active principles, gives structural formulas for them, and their action on certain types of insects.

Gnadinger, C. & Core, C.

1930

Studies on Pyrethrum Flowers. II. The Relation Between Maturity and Pyrethrin Content.

Jour. Am. Chem. Soc., 52, p. 680.

State that contrary to popular belief, the mature flowers contain much more pyrethrin than the closed or immature flowers.

Gnadinger, C. & Core, C.

1930

Studies on Pyrethrum Flowers. III. The Pyrethrin Content of Several Commercial Varieties.

Jour. Am. Chem. Soc., 52, p. 684.

Japanese Pyrethrum cinerariaefolium has twice the insecticidal value of Dalmation flowers. American grown flowers are the equal of those of Japan.

(Editor)

1931

Insect Spray.

Drugg. Circ., 75, Apr. p. 46.

Gives a formula and method for preparing a liquid insect spray from insect flowers.

(Editor)

1931

Spray for Destroying Moths, Flies and Other Vermin.

Drugg. Circ., 75, p. 29, May.

Gives a formula for an odorless and efficient insect spray containing no pyrethrum.

(Editor)

1932

Insecticide Spray.

Drugg. Circ., 76, p. 28. April.

Gives a formula including insect flowers with suggestions concerning the combatting of insect pests.

Freitag, R.

1932

Über die Gewinnung von Pyrethrumextrakten zur Herstellung von Schadlingsbekämpfungsmitteln.

Pharm. Zeit. 77, p. 1311. (Squibb Abstr. Bull. 6, p. 206; Yr. Bk. Am. Pharm. Assoc., 22, p. 62/)

Describes various methods for extracting insect flowers; Discusses the toxicity of these extracts to man, and also the sources of supply.

Holt, R. & Kinter, J.

1932

Antimosquito Sprays.

Philip. Jour. Science, 47, p. 433. (Drugg. Circ., 76, p. 48.)

Reports the results of a detailed study of mosquito sprays giving formulas, several of which include pyrethrum.

(Editor)

1933

To Greet the summer Insect Visitor.

Drugg. Circ., 77, p. 25, April.

Gives several formulas containing insect flower for use against the various insect pests.

(Editor.)

1933

Idle Miners to Grown Pyrethrum.

Drugg. Circ., 77, Dec., p. 34.

Considers the possibility that Arizona is a satisfactory place for the cultivation of pyrethrum flowers.

Davis, J.

1933

Druggists Are the Logical Sources for Insecticides.

Drugg. Circ., 77, p. 19, Feb.,

Discusses insecticides and the part they play in everyday drug store business.

Gnadinger C., & Core C.

1933

Studies on Pyrethrum Flowers.

Jour. Am. Chem. Soc., 55, p. 1218. (Yr.Bk. Am. Pharm. A., 22, p. 81.)

Report the results of an investigation of the constituents of Pyrethrum flowers.

Perrot, E. & Gaudin, O.

1933

Action des pyrethrines sur l'intestin isole de lapin.

Bull. des Sciences Pharmacol., 40, p.7. (Yr. Bk. Am. Pharm. Assoc., 22, p. 163.)

Report the results of a study of the action of pyrethrins upon the intestinal muscle of a rabbit.

Perrot, E., Gaudin, O. & du Noyer, R. 1933

Les pyrethrines dans la lutte contre l'helminthiase des Ovins et la syngamose (Ver rouge) des Gallinaces.

Bull. Sci. Pharmacol., 40, p. 13, (Yr. Bk. Am. Pharm. Assoc., 22, p. 163.)

A study of the action keratinized pyrethrins in treatment of worm infestations of sheep and poultry.

Argall, C. 1934

Japanese Pyrethrum.

Chem. & Drugg. 121. p. 750. (Yr. Bk. Am. Pharm. A. 23, p.60.)

An illustrated article dealing with the history, cultivation, uses and sales of Japanese Pyrethrum.

(Editor) 1934

Fly and Mosquito Sprays.

Drugg. Circ., 78, p. 33, May.

Gives several formulas for insect sprays.

(Editor) 1934

To Rid a Cellar of Fleas.

Drugg. Circ., 78, Aug., p. 36.

Gives methods and formulas of preparations containing insect flowers to combat insects in the cellar.

Ripert, J.

1934

Sur un Nouveau Procédé D'Analyse des Produits
Contenant des Extraits de Pyrethre.

Ann. fals., 27, p. 590 (Ibid, 28, p. 27; Pharm. Abstr.
1, p. 68.)

Describes a new method for the analysis of pyrethrum
products, and lists the constituents found therein.

(Editor)

1935

Pyrethrum Ointment, Upsher Smith.

Drugg. Circ., May, p. 28. (Pharm. Abstr., 1, p. 151.)

Gives a formula for and uses of an ointment prepared
from the flowers *chrysanthemum cinerariaefolium*.

Gaudin, O.

1935

Action toxique des pyrethrines sur les animaux
marins.

Bull. d. Sci. Pharmacol., 42, p. 145. (Pharm. Abstr., 1,
p. 246.)

Discusses the toxicity of pyrethrins to fish when
emulsions were placed in the water.

Gaudin, O.

1935

Action toxique des pyrethrines sur les
animaux marins.

Bull. Sci. d. Pharmacol., 42, p. 222. (Pharm. Abstr., 1,
p. 246.)

Reports observation on the toxicity of pyrethrins
when injected hypodermically into fish.

- Gaudin, O. 1935
Sur la toxicite comparee des pyrethrines
vis-a-vis des differentes classes de animaux.
Compt. rend., 20, p. 356. (Pharm. Abstr. 1, p. 342.)
Discusses the toxicity of pyrethrins on different classes
of animals.
- Haller, H. & Acree, F. 1935
Determination of Pyrethrin II.
Ind. Eng. Chem. Anal., 7, p. 343. (Jour. Am. Chem. Soc.,
51, p. 1893; Pharm. Abstr., 2, p. 84.)
Give method for the quantitative determination of
Pyrethrin II in insect flowers; also tables listing the
resluts obtained by several other methods.
- L Forge, F., & Haller, H. 1935
Constituents of Pyrethrum Flowers I. Isolation
of Pyrethrin II.
Jour. Am. Pharm. Soc , 57, p. 1893. (Pharm. Abstr., 2, p. 84.)
Report a method to obtain pure pyrethrin II by the ex-
traction of the flowers with petroleum ether.
- La Forge, F. & Haller, H. 1935
Constituents of Pyrethrum Flowers II. Isolation
of Pyrethrin II.
Jour. Am. Chem. Soc., 57, p. 1893. (Pharm. Abstr. 2, p. 84.)
Discuss the constituents of pyrethrum flowers and
methods of extracting them, especially Pyrethrin II.
- Roark, R. 1935
Insecticides and Fungicides.

Ind. Eng. Chem. 27, p. 530. (Pharm. Abstr. 1, p. 154.)

Discusses the history, economic importance, plant origin and synthesis of several insecticide.

Tattersfeld, F.

1935

Contact Insecticides: Recent Developments in Pyrethrum and Derris Insecticides.

Chem. Trade Jour., 96, p. 273. (Squibb Abstr. Bull., 8, p. A.937; Pharm. Abstr., 1, p. 230.)

Studied the deterioration of pyrethrum flowers under various conditions of storage.

White, W. & Chittendon, F.

1935

The Melon Aphid and Its Control.

U.S. Dept. Agr., Farm. Bull. no. 1499; (Jour. Am. Pharm. Assoc., 24, p. 343.)

Discuss the wider use of Pyrethrum and Derris root as plant insecticides.

Williams, C. & Dreessen, W.

1935

A Nonflammable Pyrethrum Spray for Use in Airplanes.

U.S. Public Health Reports, 50, p. 1401. (Pharm. Jour., 135, p. 655; Pharm. Abstr. 2, p. 180.)

Give a formula for a non-inflammable pyrethrum spray for mosquitoes to be used in airplanes.

Buc, H.

1936

Insecticide.

Spec. & Drawings of Patents, May 26, 1936, (Pharm. Abstr., 2, p. 392.)

Under U.S. Pat. 2,042,296, describes an insecticidal liquid containing rotenone and rotenoids.

Georgi, C.

1936

(Derris Root.)

Bull. in Acad. med. Roumanie, 2, p. 890; (Chimie & Ind. 38, p. 975; Pharm. Abstr. 4, p. 245.)

(Discusses relative content of rotenone and ether extracts of two yemera of plants.)

Gnaedinger, C.

1936

Insecticide.

Spec. & Drawings of Patents, June 2, 1936, (Pharm. Abstr. 2, p. 392.)

Under U.S. pat. 2,042,712 uses an oleoresin of pyrethrum treated with maphthalene as an insecticide.

Haller, H. & La Forge, F.

1936

Process for the Purification of Pyrethrin Concentrates.

Spec. & Drawings of Pat. June 16, (Pharm. Abstr. 2, p. 351.)

Under U.S. Pat. 2,044, 502, 6-16-36, gives method for the purification of pyrethrin concentrates.

La Forge, F. & Haller, H.

1936

Process of Preparing a Purified Pyrethrin Concentrate.

Spec. & Drawings of Patents, Aug. 11, 1936 (Pharm. Abstr. 2, p. 472.)

Under U.S. Pat. 2,050, 974, 8-11-36, gives a process for preparing a purified pyrethrin concentrate.

Ripert, J.

1936

Sur les Methodes D'Analyse Chimique du Pyrethre.

Ann. fals., 29, p. 344. (Pharm. Abstr. 2, p. 506.)

Gives directions for a chemical analysis of pyrethrum.

Ripert, J. & Gaudin, O.

1936

Mesure De La Toxicite de la Pyrethrine I. et de la Pyrethrine II.

Ann. Fals., 29, p. 132. (Pharm. Abstr., 2, p. 326.)

Give methods for evaluation of the toxicity of pyrethrins I. & II.

Roark, R.

1936

Review of United States Patents Relating to Rest Control.

U.S. Dept. Agric., Vol. 9, No. 3. (Jour. Soc. Chem. Ind. 56, p. 846; Pharm. Abstr. 4, p. 102.)

Discusses the various methods patented in the United States for combatting insect pests.

Ryan, V. & Moran, J.

1936

Preparation of Insecticides.

Spec. & Drawings of Patents, June 9, 1936. (Pharm. Abstr. 2, p. 392.)

Under U.S. Pat. 2,043,267 describe use of pyrethrum and derris root as ingredients in a liquid insect spray.

Gankowsky, N.

1936

Insecticides Containing Derris Extracts and
Methods of Preparing the Same.

Spec. & Drawings of Patents, Oct. 27, 1936. (Pharm. Abstr.
2, p. 517.)

Under U.S. Pat. 2,058,832 describes an insecticide
containing derris extracts dissolved in a petroleum
distillate.

Shimkin, M. & Anderson, H.

1936

Acute Toxicities of Rotenone and Mixed Pyre-
thrins in Mammals.

Proc. Soc. Exptl. Biol. & Med., 34, p. 135. (Pharm. Abstr.
2, p. 276.)

A discussion of the toxicity of pyrethrins and rotenone
on mammals.

Silman, H.

1936

The Characteristics of Insecticidal Petroleum
Emulsions.

Oil & Soap, 13, p. 101. (Jour. Soc. Chem. Ind., 55, p. 563;
Pharm. Abstr. 3, p. 35.)

A summary of the theory and practice of using petroleum
oil emulsions as insecticides.

Wotherspoon, R.

1936

Insecticidal Solution.

Spec. & Drawings of Patents, Oct. 20, 1936. (Pharm.
Abstr., 2, p. 517.)

Under U.S. Patent 2,058,200, 10-20-36, dissolves the
insecticidal principle of derris or pyrethrum in various
organic solvents.

Gnadinger, C.

1937

Insecticidal Dust.

Spec. & Drawings of Patents, Sept. 7, 1937. (Pharm. Abstr. 3, p. 532.)

Under U.S. Patent 2,092,308, uses an extract of pyrethrum in a non-volatile solvent, as an insecticide.

Hunn, E.

1937

Horticultural Oil Spray.

Spec. & Drawings of Patents, Jul. 20, 1937. (Pharm. Abstr. 3, p. 533.)

Under U.S. Patent 2,087,599 describes an emulsion containing derris or cube as an insecticide.

Lindstaedt, F.

1937

Insecticide and Fungicille Spreader.

Spec. & Drawings of Patents, Sept. 7, 1937 (Pharm. Abstr. 3, p. 532.)

Under U.S. Pat. 2,092,460 gives a formula of a spreader or diluent for use with insect powder.

Ripert, J.

1937

Insecticide and Process for the Manufacture Thereof.

Spec. & Drawings of Patents, Mar. 16, 1937 (Pharm. Abstr. 3, p. 269.)

Under U.S. Pat. 2,074,188 gives method for preparing an insecticide containing pyrethrins dissolved in glycols and glycol ethers.

Rowaan, P.

1937

Rotenonbepaling in Derriswortel.

Chem. Weekblad, 34, p. 605. (Jour. Soc. Chem. Ind., 56, p. 1267; Pharm. Abstr. 4, p. 214.)

Describes methods for the determination of rotenone content in derris root.

Simanton, W.

1937

Insecticide.

Spec. & Drawings of Patents, Aug. 10, 1937. (Pharm. Abstr. 3, p. 532.)

Under U.S. Pat. 2,089,766 describes a liquid insecticide containing pyrethrin.

Sprengel, L.

1937

Wissenschaftliche Fortschritte auf dem Gebiet chemischer Inektizide.

Angew. Chem., 50, p. 560. (Jour. Soc. Chem. Ind., 56, p. 959; Pharm. Abstr. 4, p. 218.)

Discusses the progress made in the production of chemical insecticides.

Wittwer, G. & Beakes, M.

1937

Insect Repellent and Exterminator.

Spec. & Drawings of Patents, Feb 23, 1937. (Pharm. Abstr., 3, p. 208.)

Under U.S. Pat. 2,071,484 uses a diaryl substituted guanidine, pyrethrum extract, and a fatty acid in a non-aqueous solvent as an insecticide.

Butt, N.

1938

(Insect Powder.)

Jour. Malaria Inst. India, 1, p. 147. (Pharm. Abstr. 4, p. 516.)

Describes a simple apparatus for mixing insect powders.

Coleman, L., & Cowley, G.

1938

Insecticidal Oil.

Spec. & Drawings of Patents, Jan. 18, 1938. (Pharm. Abstr. 4, p. 236.)

Under U.S. Pat. 2,105,856 uses a new menstruum which is non-toxic to vegetation for use in insect sprays.

(Editor)

1938

New Products: Derex.

Ind. & Eng. Chem., 17, p. 778.

The above preparation is an insecticide concentrate of derris root used as a liquid contact spray.

Muskat, I.

1938

Making Pyrethrin Insecticide.

Spec. & Drawings of Patents, Jan. 5, 1938 (Jour. Soc. Chem. Ind., 57, p. 310; Pharm. Abstr. 4, p. 517.)

Under U.S. Pat. 2,066, 737 describes method for manufacture of a liquid insecticide containing pyrethrin.

Roark, R.

1938

Derris Versus Cube: Is cube Equal to Derris as an Insecticide?

Soap, 14, p. 111. (Ibid, 14, p. 120; Jour. Soc. Chem. Ind., 57, p. 310; Pharm. Abstr. 4, p. 446.)

Discusses the relative value of derris root and cube as insecticides.

Water, H.

1938

Methods and Equipment for Laboratory Studies
of Insecticides.

Jour. Econ. Entomol., 30, p. 179. (Jour. Soc. Chem. Ind.,
57, p. 567.)

Describes equipment for the culture of insects and
the application of to them.

Allaire, Woodward & Co.

1939

General letter to Trade.

Discusses the effect of the European war upon prices of
raw materials in the supply of Phrethrum.

(Editor)

1939

Imports of Rotenone Bearing Roots Increasing.

Ind. & Eng. Chem. 17, p. 213.

Gives data as to imports of derris, cube, timbo,
and barbasco into the U.S. for 1936 and 1938. The Production
at source is increasing.

List of Journals Consulted

Am(eric)an Journ(al of) Pharm(acy) V.1-110, 1825-1938.

Drugg(ists) Circ(ular), V.1-83, 1857-1939.

Pharm(aceutical) Abstr(acts) V.1-83, 1857-1939.

Proc(eedings of the) Am(eric)an P harm(aceutical) A(ssocia-
tion) V.9-58, 1858-1908.

Y(ea)r B(oo)k (of the) Am(eric)an Pharm(aceutical) A(ssocia-
tion) V.1-23, 1912-1934.

Approved by W. R. Schumann
Professor of Pharmacognosy

Date May 31, 1940