

# Basic Books for the Library

*This is the final article taken from the series of talks presented at the Massachusetts Horticultural Society's conference on botanical and horticultural libraries in November 1969. — Ed.*

An institutional library, whether a public, college, or society library, is the place to go when one wants an answer to “any” question. There are two basic kinds of library tools needed to answer such questions. One is subject matter materials: books, magazines, and bulletins. Then there are the indices, atlases, dictionaries, encyclopedias, and textbooks that are needed to get at the information in the subject matter materials or to supplement those materials. Because subject matter libraries tend to be weak with regard to supplementary materials, it has seemed useful to compile a list of references.

The following titles are, in my experience, the basic references needed to make a subject matter botanical and horticultural library work. Those titles preceded with an asterisk are absolutely essential; there can be no substitutes for them. The other titles on the list are extremely useful, but not absolutely essential. This list does not include purely subject matter books.

## Dictionaries

- Brown, R. W. *Composition of Scientific Words*. Baltimore: Privately printed, 1954.
- \*Flood, W. E. *Scientific Words, Their Structure and Meaning*. London: Oldborne, 1960. Perhaps not the most complete, but certainly the best value for the money.
- \*Henderson, I. F., and W. D. Henderson. *A Dictionary of Scientific Terms*. (7th ed.) Princeton, N.J.: Van Nostrand, 1960. Good for newer terms. Earlier editions are not particularly useful.
- \*Jackson, B. D. *A Glossary of Botanic Terms*. (4th ed.) London: Duckworth & Co., 1928. The basic work in English. There is a 1949 reprint of this edition.
- \*Schneider, C. K. *Illustriertes Handwörterbuch der Botanik*. Leipzig: Wilhelm Engelmann, 1905. Probably the best one-volume dictionary; illustrated.
- \*Stearn, W. T. *Botanical Latin*. London: Nelson, 1966. Grammar, glossary, and much else of interest.
- \*Willis, J. C. *A Dictionary of the Flowering Plants and Ferns*. (6th ed.) Cambridge: University Press, 1931. Full of useful miscellaneous information. Edition reprinted in 1960.

Wood, R. S. *An English-Classical Dictionary for the Use of Taxonomists*. Claremont, Calif.: Pomona College, 1966.

\*Foreign language-English dictionaries for all of the modern European languages, Latin, and classical Greek.

### Bibliographies & Nomenclators

Arber, A. *Herbals, Their Origin and Evolution*. (2nd ed.) Cambridge: University Press, 1938.

\**Bibliography of Agriculture*. Washington, D.C.: U.S. Department of Agriculture, 1942+. Title and reference listings of articles in the various fields of agriculture. Coverage of botanical and horticultural titles is probably more extensive than *Biological Abstracts*, but it is not an abstracting journal.

\**Biological Abstracts*. Philadelphia: Biological Abstracts, 1926+. Abstracts of biological publications. Useful.

Blake, S. F. *Guide to Popular Floras*. ("Bibliographical Bulletin," No. 23.) Washington, D.C.: U.S. Department of Agriculture, 1954.

\*— — —, and A. C. Atwood. *Geographical Guide to the Floras of the World*. 2 vols. ("U.S. Department of Agriculture Miscellaneous Publications," No. 401, 797.) Washington, D.C.: Government Printing Office, 1942 (vol. 1), 1961 (vol. 2). Essential. The introduction to the second volume contains an annotated list of reference works which supplements this list.

Blunt, W., and W. T. Stearn. *The Art of Botanical Illustration*. London: Collins, 1951.

Dalla Torre, K. W. and H. Harms. *Genera Siphonogamarum & Indexband*. Leipzig: Wilhelm Engelmann, 1907, 1908. Useful as a source of information about synonymy of generic names. Essentially replaced by 7th edition of Willis' *Dictionary*. Edition reprinted in 1958 and 1963.

Dunthorne, G. *Flower and Fruit Prints of the 18th and Early 19th Centuries*. Washington, D.C.: Privately printed, 1938.

\*Frodin, D. G. *Guide to the Standard Floras of the World*. Knoxville, Tenn.: Department of Botany, University of Tennessee, 1964. Mimeographed. Useful list of the floras which should be in any botanical or horticultural library.

\*Jackson, B. D. *Index Kewensis plantarum phanerogamarum*, 2 vols. & 13 supplements. Oxford: University Press, 1893-1966+. Essential in a botanical library, very useful in a horticultural library. Lists the places of publication of binomials.

- Lawrence, G. H. M. *An Annotated Guide to Reference Works for Advanced Plantmen*. Pittsburgh: Hunt Botanical Library, 1966. Mimeographed.
- \*Massachusetts Horticultural Society. *Dictionary Catalog of the Library*. Boston: G. K. Hall, 1962. Catalog of the largest American horticultural library. Useful.
- \*Merrill, E. D., and E. H. Walker. *A Bibliography of Eastern Asiatic Botany*. 2 vols. Jamaica Plain: Arnold Arboretum, 1938 (vol. 1); Washington, D.C.: American Institute of Biological Sciences, 1960 (vol. 2). Almost absolutely essential. Useful far outside of its stated geographical area. The subject lists at the end are particularly valuable.
- Nissen, C. *Die Botanische Buchillustration*. 2 vols. & supplement. Stuttgart: Hiersemann, 1951, 1966. Essential if you are going to do anything with illustrated books. The notes on authors, illustrators, engravers, and publishers are very useful.
- \*Pritzel, G. A. *Thesaurus Literaturae Botanicae*. (2nd ed.) Leipzig: Brockhaus, 1871. This is the one basic, essential library tool. One simply cannot function without it. Authors and their dates, titles and dates of publication, size, numbers of pages, and miscellaneous notes. Also extensive systematic lists of titles at the back. Reprinted in 1950.
- \*Rehder, A. *Bibliography of Cultivated Trees and Shrubs*. . . . Jamaica Plain: Arnold Arboretum, 1949. Very useful, as far as it goes, listing extensive synonymy for accepted names.
- \*Smith, R. C., and R. H. Painter. *Guide to the Literature of the Zoological Sciences*. (7th ed.) Minneapolis: Burgess, 1966. Very useful annotated list of publications of general biological interest.
- Stafleu, F. A. *Taxonomic Literature* ("Regnum Vegetabile," No. 52.) Utrecht: Privately printed, 1967.
- \*Stapf, O. *Index Londinensis to Illustrations of Flowering Plants, Ferns, and Fern Allies*. 6 vols. Oxford: University Press, 1929-1941.
- \**Union List of Serials*. (3rd ed.) New York: H. W. Wilson, 1965. Location of periodicals in U.S. libraries.
- United States Department of Agriculture Library. *Botany Subject Index*. Boston: G. K. Hall, 1958. A useful subject index, but very incomplete.
- \*Willis, J. C. *Dictionary of the Flowering Plants and Ferns*. (7th ed., revised by H. K. Airey-Shaw.) Cambridge: University Press, 1966. Essentially an annotated list of generic names. Very useful.

\*Woodward, B. B., and A. C. Townsend. *British Museum (N. H.), Catalogue of the Books, Manuscripts, Maps, and Drawings*. 8 vols. London: British Museum, 1903–1940. Basic. One can survive — though not very happily — if one has Pritzel. Reprinted in 1964.

### Synoptic Works and Dictionaries

\*Bailey, L. H., ed. *The Standard Cyclopedia of Horticulture*. 6 vols. New York: Macmillan, 1914–1917. Still standard, reprinted several times, including a three-volume edition. The keys for identification in vol. 1 are very useful.

\*———. *Manual of Cultivated Plants*. (2nd ed.) New York: Macmillan, 1949. The standard work.

\*———, and E. Z. Bailey, compilers. *Hortus Secund*. New York: Macmillan, 1941. Very useful for common names.

Bentham, G., and J. D. Hooker. *Genera Plantarum*. London: Lovell Reeve, 1862–1883. Useful. Many people consider this to be indispensable; I don't.

\*Chittenden, F. J., ed. *The Royal Horticultural Society Dictionary of Gardening*. 4 vols. & 2 supplements. Oxford: University Press, 1951–1969. There are keys for the identification of the species of some genera, as well as lists of cultivars.

\*Dallimore, W., and A. B. Jackson. *Handbook of Coniferae and Ginkgoaceae*, ed. S. G. Harrison. New York: St. Martin's Press, 1967. Probably preferable to Krüssmann for those whose native language is English.

\*Davis, P. H. and J. Cullen. *The Identification of Flowering Plant Families*. Edinburgh: Oliver & Boyd, 1965. Essentially a set of keys for identification.

\*DeCandolle, A. P., A. DeCandolle, & C. DeCandolle. *Prodromus Systematis Naturalis Regni Vegetabilis*. 17 vols. in 20. Paris: Masson, 1824–1873. The latest comprehensive treatment for many groups of dicots.

Encke, F., ed. *Parey's Blumengartnerei*. (2nd ed.) 2 vols. & Index. Berlin: Paul Parey, 1958–1960. Useful for plants cultivated in northern Europe.

\*Engler, A., and K. Prantl. *Die Natürlichen Pflanzenfamilien*. (1st ed.) 4 vols. in 24. Wilhelm Engelmann, 1887–1914. If only one work of this kind can be had, this should be it! Particularly valuable for the illustrations. A second edition has been started but is not complete — and is very expensive. Reasonably priced copies of the first edition can still be found in the second hand book market.

- \*Graf, A. B. *Exotica 3, Pictorial Cyclopedia of Exotic Plants*. Rutherford, N.J.: Roehrs Co., 1968. Useful for identification. The names need to be checked.
- \*Hooker, J. D., ed. *Le Maout and Decaisne, A General System of Botany, Descriptive and Analytical . . .* Translated by Mrs. Hooker. London: Longmans Green, 1876. The illustrations are excellent and abundant, and the text is useful. Basic for a teaching library.
- Hutchinson, J. *The Families of Flowering Plants*. (2nd ed.) 2 vols. Oxford: University Press, 1959. I prefer Rendle.
- \*Krüssmann, G. *Handbuch der Laubgehölze*. 2 vols. Berlin: Paul Parey, 1959–1962. Useful for cultivated forms. Good line drawings.
- \*———. *Die Nadelgehölze*. (2nd ed.) Berlin: Paul Parey, 1960–1962. Useful.
- \*Loudon, J. C. *Arboretum et Fruticetum Britannicum*. (1st ed.) 8 vols. London: Longmans, Orme, Brown, Greene and Longmans, 1838. Full of interesting information.
- \*Miller, P. *The Gardener's and Botanist's Dictionary*. (9th ed., by T. Martyn.) 2 vols. London: Law & Gilbert, 1807. This is the most useful edition for all save nomenclatural purposes for which the 8th ed. is essential. It has extensive synonymy, as well as much information about economic uses.
- \*Ouden, P. den, and B. K. Boom. *Manual of Cultivated Conifers*. The Hague: Martinus Nijhoff, 1965. Useful.
- \*Rehder, A. *A Manual of Trees and Shrubs Hardy in North America*. New York: Macmillan, 1954. Standard for the area north of latitude 35°.
- Rendle, A. B. *The Classification of Flowering Plants*. 2 vols. Cambridge: University Press, 1925, 1930. A good textbook, with a bias toward the British flora. Reprinted in 1963.
- \*Werdermann, E., and H. Melchior. *A. Engler's Syllabus der Pflanzenfamilien*. (12th ed.) 2 vols. Berlin: Borntrager, 1954 (vol. 1), 1964 (vol. 2). Preferable to either Rendle or Hutchinson. Written in a German which is not difficult to follow. Especially valuable for the bibliographies.

### **Economic Plants**

- \*Burkill, I. H. *A Dictionary of the Economic Products of the Malay Peninsula*. 2 vols. London: Crown Agents for the Colonies, 1935. Essential; full of information. Reprinted in 1966.

- \*Council of Scientific and Industrial Research, India. *The Wealth of India*. Vol. 1+. New Delhi: Council of Scientific and Industrial Research, 1948+. Extremely useful treatment of economic plant material of the tropics and sub-tropics. Particularly valuable because of bibliographies appended to the articles.
- DeCandolle, A. *Origin of Cultivated Plants*. (2nd ed.) London: Kegan Paul, Trench & Co., 1886. The basic work. Reprinted in 1959.
- \*Hedrick, U. P., ed. *Sturtevant's Notes on Edible Plants*. Albany, N.Y.: State Printer, 1919. A basic work.
- \*Kingsbury, J. M. *Poisonous Plants of the United States and Canada*. Englewood Cliffs, N.J.: Prentice-Hall, 1964. The standard work. Essential.
- Watt, J. M., and M. G. Beyer-Brandwijk. *The Medicinal and Poisonous Plants of Southern and Eastern Africa*. Edinburgh: Livingston, 1962. Full of information. Valuable far outside the stated geographical limits.

### Plant Anatomy

- \*Esau, K. *Plant Anatomy*. (2nd ed.) New York: Wiley, 1965. A textbook, but just about encyclopedic in scope.
- \*Metcalf, C. R., and L. Chalk. *Anatomy of the Dicotyledons*. 2 vols. Oxford: University Press, 1950. Supplements and brings up to date the work of Solereder.
- \*———, and P. B. Tomlinson. *Anatomy of the Monocotyledons*. Oxford: University Press, 1960+. A series of essentially family anatomical monographs.
- \*Solereder, H. *Systematic Anatomy of the Dicotyledons*. Translated by L. A. Boodle and F. E. Fritsch. 2 vols. Oxford: University Press, 1908. The basic work.

### Textbooks and Miscellaneous References

- Atlante Internazionale del Touring Club Italiano*. (5th ed.) Milan: Touring Club Italiano, 1936. In my opinion, this is the best of the older atlases. Many people, however, prefer Haack or Scobel.
- \*Bartholemew, J., ed. *The Times Atlas of the World*. 5 vols. Edinburgh: Bartholemew, 1955–1959. This is the best general atlas in print. The one volume edition does not open well.
- Black, C. A. *Soil-Plant Relationships*. (2nd ed.) New York: Wiley, 1968.
- ESSA. *World Weather Records 1951–1960*. Vols. 1–7. Washington, D.C.: Government Printing Office, 1965+.

- Haack, H. *Steiler's Hand-Atlas*. (10th ed.) Gotha: Justus Perthes, 1930-1931.
- Hartmann, H. T., and D. E. Kerster. *Plant Propagation*. Englewood Cliffs, N.J.: Prentice-Hall, 1968.
- Johansen, D. A. *Plant Microtechnique*. New York, McGraw-Hill, 1940. This is the basic work in print. Zimmermann's work is still useful.
- Kingsett, C. T. *Chemical Encyclopedia*. (4th ed.) New York: Van Nostrand, 1928.
- Lawrence, G. H. M. *Taxonomy of Vascular Plants*. New York: Macmillan, 1951. Valuable for the annotated lists of recommended books.
- McLean, R. C., and W. R. I. Cook. *Plant Science Formulae*. (2nd ed.) London: Macmillan, 1952.
- , & ———. *Practical Field Ecology*. London: George Allen and Unwin, 1946. An essential "cookbook" for anyone planning to do simple ecological surveys.
- Moldenke, H. N. and A. L. Moldenke. *Plants of the Bible*. Waltham, Mass.: Chronica Botanica, 1952.
- Pirone, P. P., B. O. Dodge, and H. W. Rickett. *Diseases of Ornamental Plants*. (3rd ed.) New York: Ronald Press, 1960.
- Purvis, M. J., D. C. Collier, and D. Walls. *Laboratory Techniques in Botany*. (2nd ed.) London: Butterworth's, 1966.
- \**Royal Horticultural Society Color Chart*. (1st or 2nd ed.) London: Royal Horticultural Society, 1938-1939, 1966. There are other color charts, but this seems to dominate the field.
- Scobel, A. *Andree's Allgemeiner Handatlas*. (4th ed.) Bielefeld & Leipzig: Velhagen and Klasing, 1910.
- \**Strasburger's Textbook of Botany*. Rewritten by R. Harder, W. Schumacher, F. Firbas, and D. von Denffer. Translated from 28th German edition by P. Bell and D. Coombe. London: Longmans, 1965. The best botanical textbook for reference available.
- \*United States Board on Geographic Names. *Official Standard Names Gazetteers*. Nos. 1-110+. Washington, D.C.: Department of the Interior, 1955-1969+. Indispensable for finding locations of place names and also for the listing of standard maps in the introduction to each part.
- \*Weast, R. C., ed. *Handbook of Chemistry and Physics*. (48th ed.) Cleveland: Chemical Rubber Co., 1967.
- Zimmermann, A. *Botanical Microtechnique*. Translated by J. E. Humphrey. London: A. Constable & Co., 1896.

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