

QUICK ACCESS TO FORESTRY INFORMATION THROUGH CD-ROM

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Introduction

Forestry information retrieval through CD-ROM is a rapid process than any other literature search technique. Due to many reasons, this process is not popularised among the forestry information seekers in India. The forestry literature retrieval studies are undertaken to create awareness through the databases available on CD-ROM. The TREE-CD is an electronic database in forestry and its allied subjects available on Compact Disc, which provides easy access to relevant information. The study reveals that a total number of 32,135 records are available on major tree species - *Eucalyptus*, *Azadirachta indica*, *Casuarina equisetifolia*, *Bamboo Santalum album*, *Tectona grandis*, *Populus* spp. and *Tamarindus indica*. These studies help not only to create awareness among the researchers, foresters and students but also to save their valuable time and resources.

Since the development of information technology and the constant growth of literature all over the world, the services of libraries in the country have to be revived in such a way that the services should help the researchers to get a comprehensive idea of the latest developments of their subjects and to compete with global scientific communities. The electronic innovations such as CD-ROM, E-Mail, INTERNET are

helping the reader to search the latest information as well as access the relevant material within a short span of time.

CD-ROM

The CD-ROM (Compact Disc - Read Only Memory) is an optical storage medium for data and WORM (Write Once Read Many Times) device, where the data is digitized and stored on a disc of 12 cm diameter and 1.2 mm thick, made up of polycarbonate and aluminum base with a protective coating of lacquer. The life of CD-ROM is more than hundred years and it is very easy to handle, portable and virus proof.

CD-Drive

To retrieve the information from the compact disk, certain electronic peripherals are needed. The data stored on the Compact Disc must be passed on to the computer. The CD-ROM drive connects one to the other and is done through a drive computer interface.

The performance of a CD-ROM drive is calculated based on the data transfer rate of the drive. Some of the CD-ROM drives are : Single speed drives (Transfer data at 150 kbps), Double speed drive (300 kbps), Quad speed drive (600 kbps) and 6x CD-ROM Drive (900 kbps).

Materials and Methods

The TREE-CD is one of the most important sources of forestry information. Presently, the TREE-CDs are comprising two Compact Discs. The archival disc, which is storing the data from the year 1939 to December 1972 and the other disc contains the data from the year 1973 to January 1997. The literature retrieval study was carried out in the Compact Disc covering the data from the year 1973 - January 1997.

All the major forest tree species such as *Eucalyptus*, *Azadirachta indica*, *Casuarina equisetifolia*, Bamboo *Santalum album*, *Tectona grandis*, *Populus* spp. and *Tamarindus indica* are taken for this literature access study. In addition to this, combined studies are also carried out with the combination of its allied subjects.

TREE-CD

The Compact Disc is containing database of woody plants except horticultural crops and are having more than 400,000 records including bibliographic references with abstracts.

Each record is made up of many fields namely Title, Author, Address, Publication year, Sources, Abstracts etc. The TREE-CD is being updated by nearly 3,750 records at each quarter with the published literature in the forestry and allied subjects. The information is collected from the major Abstracting journals: (1) Forestry Abstracts (2) Agroforestry Abstracts and (3) Forestry products Abstracts.

The TREE-CD covers over 1,400 published periodicals around the world. It is an archive of forestry information and its

allied subjects of Agroforestry, Breeding, Dendrochronology, Disease, Environment, Mensuration, Forest Products, Fire, Pest, Silviculture, Seed, Wood, Ecology, Germination, Tissue culture, Pathology etc.

Search Strategies

During the entire study, to obtain relevant records, certain search strategies have been followed. They are :

Searching with Free Text : The key words of the related topic and its terms are used to retrieve records. In each, the record consists of many key words. Hence, one record may appear repeatedly in number of times in each search combination. For instance, let us take a record as example, it contains the key words "Seed" and "Germination". In the retrieval search, the record might appear both under the key word search "Seed" as well as "Germination". The search could also be carried out through the related terms of germination such as "after-ripening, emergence, germination inhibitors, preharvest sprouting, seed testing, seed treatment, seeds, sprouting, viability".

Searching from the Index : During this searching/studies, the related terms are taken from the Index prompt. Similarly the name of the tree species and singular and plural forms of terms are also taken for this studies. Generally to cope with plurals the asterisk mark after the term is used and search operator "AND" and "OR" are used to retrieve the records.

Results and Discussion

The retrieval results shows that there are 10,602 records on *Eucalyptus*;

Table 1

Records Appearing on TREE-CD (1973-1997)
(Species and Allied Subjects-wise)

Subject	<i>Eucalyptus</i>	<i>Azadirachta indica</i>	<i>Casuarina</i>	Bamboo	<i>Santalum album</i>	<i>Tectona grandis</i>	<i>Populus</i> spp.	<i>Tamarindus</i>
Agroforestry	1985	1183	509	354	48	272	580	117
Breeding	1551	144	219	353	73	177	1933	28
Dendrochronology	53	1	2	18	0	18	78	0
Disease	2049	835	161	724	145	239	2767	32
Environment	1374	167	187	381	26	146	1288	23
Ecology	1485	142	215	594	31	250	1438	27
Fire	475	20	46	71	4	51	291	3
Forest Product	4119	876	387	2672	211	508	4919	83
Economics	588	88	76	527	14	125	629	13
Germination	514	345	73	161	59	98	252	41
Mensuration	1441	85	185	362	32	282	1574	21
Pathology	812	184	65	172	83	58	1104	11
Pest	2714	1254	229	923	147	329	3569	40
Silviculture	4248	367	540	1145	226	643	4681	90
Tissue culture	335	30	44	147	36	47	595	14
Wood	2367	123	195	1265	88	471	3360	29
Seed	2133	850	327	410	133	281	958	93
Total number of records appeared	28243	6664	3460	10279	1356	3995	30016	665

Azadirachta indica - 1,961, *Casuarina equisetifolia* - 1,202, Bamboo - 3,974, *Santalum album* - 462, *Tectona grandis* - 1594, *Populus* spp. - 12,118 and *Tamarindus indica* - 222.

The combined retrieval studies of tree species are taken up with the allied subjects of Agroforestry, Breeding, Dendrochronology, Disease, Environment,

Ecology, Fire, Forest Product, Economics, Germination, Mensuration, Pathology, Pest, Silviculture, Tissue Culture, Wood and Seed. The number of records appearing on the studies are shown more detailed in the Table 1. The study reveals that the total number of records available on the allied subjects are as (1) Agroforestry: 26,346; (2) Breeding : 27,500; (3) Dendrochronology: 2,571; (4) Disease : 58,815; (5) Environment :

37,879; (6) Ecology : 44,816; (7) Fire : 9,800; (8) Forest Products : 1,06,936; (9) Economics : 23,799; (10) Germination : 13,325; (11) Mensuration : 37,717; (12) Pathology : 20,987; (13) Pest : 76,953; (14) Silviculture : 82,927; (15) Tissue Culture : 7,067; (16) Wood : 79,243; (17) Seed : 40,551.

Impact on the Forest Information Centre

Literature searching through the CD-ROM is radically different from the traditional searching of books and periodicals in the library. An enormous amount of information is stored in a single Compact Disc and it holds an equivalent of 250,000 A4 sized pages. Thus many shelves of printed material can be replaced with a single Compact Disc. Hence, the time spent for searching of books and periodicals is greatly reduced and the valuable time of researchers and foresters could greatly be saved. The CD-ROM is free from attacking pests, light, dust and humidity so the maintenance charges for CD-ROM are very

low when compared to the printed material.

Conclusion

It may be concluded that with the exponential growth of literature, the Researchers, Foresters, Students need a specialized service. Such type of information dissemination service can be provided by the library in many advanced manners. The providing of literature through the CD-ROM is inevitable in any modern library. The awareness of the latest development of CD-ROM based literature retrieval system and the familiarity with the databases on CD-ROM, help the users in getting as much information as possible on their specific issues within a short time period.

Since the TREE-CD is one of the major sources of forestry information the users should have the knowledge of the TREE-CD and other CD-ROM based databases. Moreover, the library and information centres should concentrate on the CD-ROM based information material in their future collection.

SUMMARY

The paper describes the content, subject coverage of databases available on CD-ROM and impact of CD-ROM technology as an information retrieval tool of forestry information centres. The forestry information retrieval study helps to save the valuable time of the researchers and foresters. Ultimately this study reveals the immense use of CAB International's CD-ROM product TREE-CD.

सीडी-रोम द्वारा वानिकी जानकारी तक जल्दी पहुंचना

सी० सुब्रमनियन

सारांश

इस अभिपत्र में सीडी - रोम पर उपलब्ध डेटा आधारों के तत्व, विषय व्याप्ति तथा वानिकी सूचना केन्द्रों की जानकारी की पुनर्प्राप्ति उपकरण स्वरूप सीडी-रोग प्रौद्योगिकी के प्रभाव का वर्णन दिया गया है। वानिकी जानकारी की पुनर्प्राप्ति के अध्ययन से अनुसन्धायकों और वानिकों का मूल्यवान समय बचाने में सहायता मिलती है। इस अध्ययन से अन्ततः यह पता चलता है कि सीएबी इंटरनेशनल के सीडी-रोम उत्पाद टीआरइड-सीडी का कितना अधिक उपयोग किया जा सकता है।