AN ISO 9001 : 2015 CERTIFIED COMPANY

Tropical, Subtropical Fruits & Flowers Cultivation

FREE SAMPLE: contents and introduction of the 600-page book
Price: Rs 1,075 | US$ 28.95

Order the full book >

AN ISO 9001 : 2015 CERTIFIED COMPANY

Author: NIIR Board
Format: paperback
Code: NI123
Pages: 600
Price: Rs 1,075 | US$ 28.95
Publisher: NIIR PROJECT CONSULTANCY SERVICES
Shipping: 5 days

About the Book

Tropical and subtropical plants grow in tropical jungles around the world. These plants often produce stunning blooms in a range of colors, and bring a unique and exotic feel to their growing environment. Although they hail from moist areas, many tropical and subtropical plants require warmth more than moisture. Some species of tropical plants are therefore quite easy to grow in warm, non tropical areas. One of the great characteristics of tropical plants is that they keep growing all season. There are thousands of tropical and subtropical fruits and flowers. The tropics have the capacity to produce large quantities of fruit and international trade is adding new kinds as rapid shipment possibilities increase. Some tropical fruits such as the banana, mango and pineapple are now as familiar as the apple and pear in temperate regions. Other examples of tropical fruits are grape, papaya, litchi, guava, coconut etc. In comparison with fruits of temperate regions, many tropical species have been much neglected in international markets. Citrus cultivation is carried out on a large scale. Citrus is grown worldwide although they are tropical plants so that most of the commercial groves are in subtropical regions. It is usually grown at sea level where sufficient moisture is readily available, or under irrigation. Any well drained soil, except an extremely sandy one, is suitable. The fruits ripen at different times of the year depending on the species and variety. There are various kind of tropical flowers; Aster (Callistephus chinensis), Jasmine (Jasminum sp.), Calendula (Calendula officinalis), Carnation (Dianthus caryophyllus), Lily (Lilium spp.), Narcissus (Narcissus spp.), Orchids and many more. Flowers require sincere, patient, soft, affectionate as well as expert handling. Most houseplants are tropical plants. That's why they do so well indoors, at temperature levels humans find comfortable in their homes, around 60 F to 90 F. More technically, tropical plants are defined as all vegetation growing in a wide band around the equator between the Tropic of Cancer and the Tropic of Capricorn. Just north and south of that band are the subtropical areas, also rich in plants of interest to our group.

This book basically deals with seed propagation extraction and handling, effect of seed treatment and temperature on germination, vegetative propagation, effect of rootstocks on mineral composition, type of cutting, growth substances and season, postharvest management of fruits and vegetables, factors affecting postharvest life of flowers, postharvest management of flowers, postharvest management of spices, postharvest management of plantation crops, control of ripening process, pelletization, transportation, storage etc.

Plant propagation is an important aspect of agriculture in general and horticulture in particular. This book contains new methods for cultivation of tropical, subtropical fruits and flowers. The book is very useful for

agriculture universities library, consultants, new entrepreneurs, plantation companies, farmers who wants to update their knowledge and adopt new cultivation techniques.

Contents

1. CITRUS
Seed Propagation
Extraction and handling
Viability
Storage
Effect of Seed Treatment and Temperature on Germination
Seed treatment to control Fungal diseases
Polyembryony
Vegetative Propagation
Cutting
Air-Layering
Budding
Methods of Budding
Selection, Preparation and Storage of Budwood
Time of Budding
Age of Rootstock and Height of Budding
Wrapping Material and Lopping
Decline of Dudded Tree
Rootstocks
Suitability of Rootstocks
Effect of Rootstocks on Tree-size, Yield and
Quality of Fruits
Incompatibility
Disease and Pest Resistant Rootstocks
Frost-resistant Rootstocks
Effect of Rootstocks on Mineral Composition
Dwarfing Rootstocks
Rootstock in Relation to Soil
Salt Tolerant Rootstock
Drought Tolent Rootstock
Interstock
Micropropagation
Shoot-tip Grafting
2. GRAPE
Seed Propagation
Germination
Effect of Temperature
Effect of Growth Substances and Other Chemicals
Effect of Irradiation
Biochemical Changes
Vegetative Propagation
Cutting
Type of Shoot and Length of Cutting
Effect of Season and Temperature
Effect of Water Treatment

Effect of Growth Substances
Mist and Media
Other Treatments Influencing Root Formation
Storage of Cutting
Biochemical Changes During Root Formation
Anatomy of Root Formation
Single-Bud Cutting
Layering
Grafting
Methods
Effect of Rootstock on Graft Union
Effect of Season
Effect of Growth Substances and Other Chemicals
Stratification
Use of Paraffin
Other Factors Influencing Graft Union
Storage of Graft
Biochemical changes
Top Working
Budding
Methods
Effect of Season
Effect of Rootstock
Storage of Bud
Effect of Methods of Propagation
Source of Scion
Rootstock
Adaptability of Soil and Climate
Disease and Nematode Resistant Rootstock
Effect of Rootstock on Growth, Yield and Quality
Effect of Rootstock on Mineral Composition
Incompatibility
Micropropagation
Anther Culture
Ovule and Embryo Culture
Protoplast Culture
Microcutting
Growth Variation
3. BANANA
Seed Propagation
Vegetative Propagation
Suckers, Peepers and Corms
Micropropagation
4. MANGO
Seed Propagation
Polyembryony
Storage
Germination
Vegetative Propagation
Cutting
Part and Age of Plant

Effect of Forcing, Ringing and Etiolation
Effect of Bottom Heat
Effect of Growth Substances and Other Chemicals
Effect of Age of Cutting, Bottom Head and
Growth Substance
Life of Cutting
Biochemical Changes
Layering
Air-Layering
Etiolation
Media
Effect of Growth Substances
Biochemical Changes
Stooling
Grafting
Method
Effect or Stock and Scion on Graft Union
Effect of Season
Effect of Growth Substances
Anatomy of Graft Union
Budding
Methods
Budding in Situ
Effect of Stock and Scion
Season
Growth Substance
Storage of Budwood
Anatomy of Bud-Union
Effect of Different Methods of Propagation
Rootstock

Effect of Rootstock on Growth and Yield
Salt Tolerance
Anatomical Screening
Micropopagation
5. PINEAPPLE
Seed Propagation
Germination
Vegetative Propagation
Type of Planting Material
Size and Weight of Planting Material
Storage of Planting Material
Micropropagation
6. PAPAYA
Seed Propagation
Storage
Germination
Vegetative Propagation
Cutting
Grafting
Micropropagation

7. LITCHI
Seed Propagation
Germination
Vegetative Propagation
Cutting
Humidity
Effect of Growth Substances
Layering
Air-Layering
Media
Season
Growth Substances
Wrapping Material
Biochemical Changes
Stooling
Grafting
8. GUAVA
Seed Propagation
Germination
Vegetative Propagation
Cutting
Type of Cutting
Season
Humidity
Effect of Growth Substances
Growth Substances and Media
Type of Cutting and Growth Substances
Biochemical Changes
Root Cutting
Layering
Air-Layering
Methods
Effect of Growth Substances
Stooling
Grafting
Type of Scion
Season
Budding
Methods
Season
Rootstock
Effect of Rootstock on Growth and Yield
Disease and Pest Resistant Rootstocks
Micropropagation
9. COCONUT
Seed Propagation
Germination
Time of Seed-Nut Harvest
Storage of Nut
Selection of Nuts
Seed Treatment

Raising of Seedlings
Time of Planting
Method of Planting
Watering
Seedling Growth
Vegetative Propagation
Layering
Micropropagation
10. CASHEWNUT
Seed Propagation
Germination
Seedling Growth
Vegetative Propagation
Cutting
Effect of Growth Substances
Effect of Ringing and Growth Substances
Layering
Air-Layering
Effect of Growth Substances
Stooling
Grafting
Methods
Season
Age of Stock and Season
Budding
Top Working
Micropropagation
11. AVOCADO
Seed Propagation
Storage and Viability
Germination
Seedling Growth
Vegetative Propagation
Cutting
Type of Cutting
Etiolation and Ringing
Effect of Growth Substances
Clonal Variation
Type of Cuttings and Humidity
Growth Substances and Temperature
Type of Cutting and Temperature
Type of Cutting Temperature and Media
Type of cutting, Growth Substances and Humidity
Type of Cutting Etiolation and Growth Substances
Endogenous Growth Substances
Leaf Cutting
Layering
Air-Layering
Grafting
Methods
Storage of Scion

Anatomy of Graft Union
Top Working
Budding
Methods
Comparison between Grafting and Budding
Rootstock
Success
Effect of Vigour and Yield
Salt Tolerance
Resistance to Chlorosis
Resistance to Diseases
Interstock
Control of Sprout from Rootstock
Micropropagation
12. OLIVE
Seed Propagation
Germination
Stage of Maturity
Storage
Seed Development and Growth Substances
Temperature
Seed Treatment
Vegetative Propagation
Ovuli
Sucker
Cutting
Type of Cutting
Effect of Growth Substances
Media
Type of Cutting and Growth Substances
Effect of Growth Substance and Fungicide
Effect of Growth Substances and Nutrients
Growth Substances and Media
Growth Substances and Cultivars
Growth Substances and Season
Growth Substance and Humidity
Season
Season and Temperature
Season and Media
Cultivar and Temperature
Media and Humidity
Type of Cutting, Growth Substances and Season
Type of Cutting, Growth Substances and Media
Type of Cutting, Growth Substances and Humidity
Cultivar, Growth Substances, Media and Season
Media, Temperature and Humidity
Growth Substance, Temperature and Humidity
Layering
Grafting
Methods
Rootstock for Grafting

Anatomy of Graft Union
Budding
Budding and Grafting
Rootstock
Micropropagation
13. SAPOTA
Seed Propagation
Vegetative Propagation
Layering
Etiolation and Girdling
Effect of Growth Substances
Metabolic Changes
Grafting
Rootstock
Micro Propagation
14. BER
Seed Propagation
Development of Seed
Germination
Factors Affecting seed Germination
Seed Treatment
Media
Seedling Performance
Vegetative Propagation
Cutting
Effect of Growth Substances
Effect of Temperature
Layering
Air-Layering
Effect of Growth Substances
Stooling
Budding
Top Working
Grafting
Rootstock
Micropropagation
15. FIG
Seed Propagation
Vegetative Propagation
Cutting
Type of Cutting
Type of Cutting and Season
Effect of Growth Substances
Type of Cutting and Fungicide
Microprogation
16. JAMUN
Seed Propagation
Germination
Vegetative Propagation
Cutting
Type of Cutting

Effect of Growth Substances
Layering
Grafting
Budding
17. JACKFRUIT
Seed Propagation
Germination
Vegetative Propagation
Cutting
Layering
Air-Layering
Stooling
Grafting
Budding
Rootstock
Micropropagation
18. DATEPALM
Seed Propagation
Germination
Temperature and Chemicals
Histochemical Changes
Vegetative Propagation
Offshoot
Micropropagation
19. ANONA
Seed Propagation
Dormancy
Germination
Vegetative Propagation
Cutting
Grafting
Budding
Rootstock
Micropropagation
20. POMEGRANATE
Vegetative Propagation
Suckers
Cuttings
Type of Cutting
Effect of Growth Substances
Air-Layering
Top-Working
Micro Propagation
21. PERSIMMON
Seed Propagation
Storage and Viability
Germination
Seedling Growth
Vegetative Propagation
Sucker
Root Cutting

Grafting
Method
Season
Storage of Scion
Budding
Rootstock
Micro Propagation
22. PHALSA
Vegetative Propagation
Cutting
Type of Cutting
Effect of Growth Substance and Fungicides
Anatomy of Root Formation
Layering
Grafting
23. MULBERRY
Seed Propagation
Viability
Germination
Vegetative Propagation
Cutting
Species

Effect of Growth Substances and Nutrients
Anatomy of Root Formation
Layering
Budding
Micropropagation
ORNAMENTAL PLANTS
24. ANNUAL FLOWERS
Classification
Winter Season Annuals
Summer Season Annuals
Rainy Season Annuals
Climate and Soil
Varieties
Acroclinium
Ageratum
Amaranthus
Anchusa
Antirrhinum
Arctotis
Balsam
Calendula
Candytuft
Carnation (annual)
Celosia
China Aster
Chrysanthemum (annual)
Cineraria
Clarkia

Coreopsis
Cornflower
Cosmos
Daisy
Dianthus
Dimorphotheca
Eschscholzia
Gaillardia
Garden Poppy
Gazania
Godetia
Gomphrena
Gypsophila
Helichrysum
Hollyhock
Larkspur
Limonium
Linaria
Lupin
Marigold
Matricaria
Mignonette
Myosotis
Nasturtium
Nemesia
Nicotiana
Nigella
Pansy
Petunia
Phlox
Portulaca
Primula
Rudbeckia
Salvia
Scabiosa
Schizanthus
Stock
Sunflower
Sweet Alyssum
Sweet Pea
Sweet Sultan
Sweet William
Venidium
Viola
Wall Flower
Zinnia
Propagation
Cultivation
Planting
Manuring and Fertilization
Growth and Flowering

Aftercare
Irrigation
Harvesting and Postharvest Management
25. ANTHURIUM
Climate and Soil
Varieties
Red
Orange
White
Pink
Obake Types
Propagation
Cultivation
Planting
Manuring and Fertilization
Aftercare
Irrigation
Harvesting and Postharvest Management
26. CARNATION
Climate and Soil
Varieties
Propagation
Growing Structures
Cultivation
Planting
Pinching
Flower Regulation
Supplementary Lighting
Growth Regulators
Nutrition
Aftercare
Irrigation
Harvesting and Postharvest Management
Harvesting Stage
Grading
Conditioning of Flowers
Packaging and Transportation
Physiological Disorders
27. CHRYSANTHEMUM
Climate and Soil
Varieties
Garland Purpose
Cut Spray
Propagation
Seeds
Suckers
Cuttings
Cultivation
Training
Manuring and Fertilization
Aftercare

Irrigation
Harvesting and Postharvest Management
28. GLADIOLUS
Climate and Soil
Varieties
Propagation
Seeds
Tissue Culture
Corm Dormancy
Cultivation
Land Preparation
Planting
Manuring and Fertilization
Interculture
Irrigation
Harvesting and Postharvest Management
Physiological Disorder
29. JASMINE
Climate and Soil
Varieties
J. sambac
J. grandiflorum
J. auriculatum
J. multiflorum
J. arborescens
J. calophyllum
J. flexile
J. humile
Propagation
Cultivation
Planting
Pruning
Manuring and Fertilization
Aftercare
Irrigation
Harvesting and Postharvest Management
Physiological Disorders
30. ORCHIDS
Climate and Soil
Varieties
Propagation
Cultivation
Planting
Manuring and Fertilization
Aftercare
Irrigation
Harvesting and Postharvest Management
Physiological Disorders
31. ROSE
Climate and Soil
Varieties

Propagation
Cultivation
Planting
Pruning
Manuring and Fertilization
Irrigation
Weeding
Mulching
Disbudding and Pinching
Suckers
Harvesting and Postharvest Management
MANAGEMENT OF DISEASES
32. DISEASES OF FRUITS
33. MANAGEMENT OF PESTS
Biological Control
Mechanical Control
Physical Control
Cultural Control
Chemical Control
Inorganic Insecticides
Organic Insecticides
Naturally Occurring
Uses of Some Common Insecticides
Specific Control Measure to Important Pests of
Some Common Crops
Fruits
34. POSTHARVEST MANAGEMENT OF PLANTATION CROPS
Coconut
Dry Processing of Coconut
Copra Production
Oil extraction
Copra Moisture Meter
Copra Storage
Extraction of Oil from Copra
Coconut Oil
Edible Copra
Wet Processiing of Coconut
Desiccated Coconut
Coconut Cream
Coconut Milk Powder
Virgin Oil
Medium/low-fat, Desiccated Coconut
Coconut Cheese
Coconut Syrup
Coconut Honey
Tender coconut water
Coconut Byproducts
Coconut Water
Husk
Natural Fibre Extraction
Mechanical Extraction

Arecanut
Chali
Kalipak
Scented Supari
Other Uses of Arecanut
Oil Palm
Sterilization
Stripping
Digestion
Pressing
Clarification
Purification
Nut Recovery
Cashew
Cashew Nut Processing
Shelling
Kernel Drying
Peeling
Grading and Conditioning
Packaging of Kernels
Cashew Nut Shell Liquid (CNSL)
Value-added Products of Cashew Apple
Cocoa
Primary Processing
Storage of Dried Beans
Final Processing
Press System
Expeller System
Chocolate Processing
35. POSTHARVEST MANAGEMENT OF SPICES
Black Pepper
Despiking
Drying
Drying Surface
Dry Recovery
Value-added Products
Cardamom
Curing
Value-added Products
Turmeric
Ginger
Value-added Products
Clove
Value-added Products
Cinnamon
Value-added Products
Nutmeg and Mace
Value-added Products
Allspice
36. POSTHARVEST MANAGEMENT OF FLOWERS
Causes of Deterioration of Harvested Flowers

Growing Condition
Mechanical Injury
Bacterial and Fungal Infections
Plugging of Xylem Vessels of cut Flowers
Moisture Content
Water Quality
Ethylene Gas
Heat Damage
Factors Affecting Postharvest Life of Flowers
Stage of Harvesting
Water Relations
Respiration
Relative Humidity
Growth Regulators
Preservative Solutions
Precooling and Storage
Packing and Transporting
Home Care of Cut Flowers
Care And Management of Different Types of
Flowers Loose Flowers
Aster (Callistephus chinensis)
Crossandra (Crossandra undulaefolia)
Jasmine (Jasminum sp.)
Tuberose (Polianthes tuberosa)
Cut Flowers
Alstroemeria spp.
Amaryllis and Hippeastrum
Anthurium (Anthurium andreanum and
A. scherzerianum)
Antirrhinum or Snapdragon (Antirrhinum majus)
Bird-of-paradise (Strelitzia reginae)
Calendula (Calendula officinalis)
Carnation (Dianthus caryophyllus)
Freesia (Freesia refrecta)
Gerbera (Gerbera jamesonii)
Gladiolus (Gladiolus spp.)
Gypsophila (Gypsophila paniculata)
Lily (Lilium spp.)
Narcissus (Narcissus spp.)
Orchids (Arachnis, Aranda, Aranthera, Ascocendra and Epidendrum)
Cattleya
Cymbidium
Dendrobium
Odontoglossum and Oncidium
Paphiopedilum
Phalaenopais
Rose (Rosa hybrida)
Tuberose (Polianthes tuberosa)
Zinnia (Zinnia elegans)
37. POSTHARVEST MANAGEMENT OF FRUITS AND VEGETABLES
Preharvest Factors

AN ISO 9001 : 2015 CERTIFIED COMPANY

Selection of Varieties
Cultural Operations
Preharvest Treatments
Maturity
Harvesting
Postharvest Factors
Curing
Degreening
Pre-cooling
Washing and Drying
Sorting and Grading
Disinfestation
Postharvest Treatments
Waxing
Control of Ripening Process
Ripening of fruits
Pre-packaging in Plastic Films
Packaging
Pelletization
Transportation
Storage
Irradiation

Get the full book

This sample shows only the contents and introduction. The full book has every chapter.
Price: Rs 1,075 | US$ 28.95
Delivery: Shipped within 5 working days of payment
Order online: niir.org/books/tropical-subtropical-fruits-flowers-cultivation/ **WhatsApp:** +91 9097-075-054

Planning a unit? NPCS project reports:

- Water Treatment Chemicals project report
- N Paraffin project report

NIIR PROJECT CONSULTANCY SERVICES (NPCS) is a reliable name in the industrial world for offering integrated technical consultancy services. NPCS is manned by engineers, planners, specialists, financial experts, economic analysts and design specialists with extensive experience in the related industries.

Our various services are: Detailed Project Report, Business Plan for Manufacturing Plant, Start-up Ideas, Business Ideas for Entrepreneurs, Market Research, Manufacturing Process, Machinery, Raw Materials, Project Feasibility, Investment Opportunities, Technical Consultancy and Startup Help.

NPCS also publishes process technology books, technical books, startup books, directory, business database, detailed project reports and market research reports.

Our Detailed Project Report aims at providing all the critical data required by entrepreneurs for starting new business ventures.

NIIR PROJECT CONSULTANCY SERVICES
106-E, Kamla Nagar, New Delhi-110007, India

Email: npcs.india@gmail.com **Website:** https://www.niir.org/



Scan to order the full book on niir.org