Growing Espaliers

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Growing Espalier Fruit Trees
What Is An Espalier?
“A Plant Trained To Grow Flat Against A Wall Or Framework To Train A Tree Or Shrub With Its Branches Growing In A Two Dimensional Plane, Flat Against A Building Or Fence ”
Espalier, a compact style of training fruit trees, originally referred to the framework upon which such trees were trained (Ital. spalliera: a lattice-work or row of stakes)
Legend suggests these techniques originated in 17th century France by Father Legendre (who evidently disliked climbing ladders), but earlier records are known
• A Normal Growing Tree Or Shrub Has Three Planes, Which Are Height, Width And Depth
An Espalier Has Two, Height And Width
There is no depth since it has been trained to grow flat.
Why Grow Espalier Trees?
• This Method Of Growing Trees And Shrubs Was Generally Used Where Space Was A Problem.
History
These Techniques Originated In The Middle East
Espalier (Is-`pal-yer) Became A Commonly Employed Fruit Tree Growing Method Of The Greco-roman World
In The Dark Ages, Monasteries And Royal Gardens Kept The Techniques Alive
Espaliered Fruit Trees Grew On The Inner Walls Of Castle Courtyards And Walled Cities
Ever Since The Ancient Romans Began Training Trees To Grow Along A Flat Surface, Gardeners Have Been Developing Espalier Into An Art Form
In Europe, Espalier are widely used in orchards for commercial fruit production, and the practice is becoming more common in the United States.
Why Grow Espalier Trees?

- Many Gardeners Grow Espaliers Because Of The Interesting Design It Adds To Their Gardens
Why Grow Espalier Trees?

• These Trees Take Effort, Time And Need Frequent Attention
Why Grow Espalier Trees?

- If You Are Not Interested In Spending A Lot Of Time Pruning, Do not Do It
Plant Selection
Start With The Right Plants
What Plant Make Good Espaliers?

• Any Tree Or Shrub That Has Long, Flexible Branches Is Suitable For Training
All Fruit Trees Can Be Espaliered, But Apple, Pear And Plum Trees Are Best
Apple Or Pear Trees Are Good Choices To Espalier Because They Bear On Fruiting Spurs
Stone Fruits, Such As Peaches Or Cherries Are Difficult To Train. They Bear On New Wood, Which Hampers Pruning
Pyracantha Is A Good Choice, But Almost Any Species That Tolerates Repeated Pruning Can Be Used
Regardless Of Which Fruit Bearing Species You Choose, You Must Use A Dwarf Specimen
Standard Fruit Trees Quickly Get Too Large To Train
Choose Trees With A Dwarf Rootstock And Grafted Cultivar
The Rootstock Determines The Size Of The Mature Tree
When Planting The Tree, Keep The Graft Union Above Ground, Or The Scion Cultivar Will Sprout Roots Above The Graft And Become A Full Sized Tree
How To Develop Espalier Trees
How To Develop Espalier Trees

- Training Must Take Place When Plants Are Young And Supple
How To Develop Espalier Trees

• Consider The Mature Height Of The Tree Or Plant In Question
How To Develop Espalier Trees

• Choose A Tree That Will Not Outgrow The Intended Area
The Tree Must Be In Its First Year Or Two Of Growth In Order To Be Espaliered
Older Trees Are More Difficult To Train, As Bending Mature Branches Can Take One To Three Years
Any Gardener Attempting The Espalier Technique Should Be Aware Of The Time Investment Required For Success
How To Develop Espalier Trees

• Set Up A Wooden, Metal Or Wire Framework
Train The Tree To The Frame
While Limbs Are Still Flexible
Do Not Tie The Ends Of Shoots Down Too Soon
Develop Lower, Outer Limbs Before Inner, Upper Ones
Balance Limb Vigor By Raising Weaker Ones, Lowering Stronger Ones, Or By Leaving Weaker Ones Upright Until They Catch Up To The Stronger Ones Which Are Already Bent Down
If the trellis will be attached to a building, consider its aesthetic effect.
Trellises May Be Removed Once The Tree's Scaffold System Reaches Its Final, Rigid State, But Leave It Long Enough To Support The Fruit
If the trellis is not attached to a wall, you will need sturdy posts on the ends for support.
Use 4x4-inch Or Heavier Lumber, Or Three- To Five-inch Posts
• Set one-fourth of the length of the post underground
• Twelve- or 14-gauge, galvanized wire is best for trellises
How To Develop Espalier Trees

They Have The Following Basic Requirements:

– Six Hours Of Daily Sunlight
– Sufficient Water
– Well Drained Soil
– Frost Free Growing Area
South Facing Walls May Seem Ideal Growing Locations But They Often Get Too Hot In The Summer And The Trees Come Out Too Early In The Spring
• Plant One-year-old Fruit Tree “Whips” And Cut Off The Top Of Each Whip, Right At The Lowest Support
The Young Trees Begin Vigorously Branching Off, Right Where It Is Cut Off
Once These Branches Are About An Inch Long, Select The Most Vigorous In The Right Places And Trim Off The Rest.
After Trees Are Established, Prune Away Branches That Grow Forward Or Backwards From The Supports
How To Develop Espalier Trees

• Build This Framework At Away From The Wall Or Fence To Allow For Circulation
How To Develop Espalier Trees

• The Framework Is Strips Of Metal, Wire Or Wood, That Has Been Attached To A Wall Or Trellising
How To Develop Espalier Trees

- Plant Your New Tree Or Shrub At The Base Of The Framework
How To Develop Espalier Trees

• Other Than This Vertical Shoot, Trim Off Any Other Shoots At Ground Level
How To Develop Espalier Trees

• After The Main Stem Has Six Inch Growth Above The Place At Where It Is To Split Into Two Stems, (Usually Happen At About 2 Feet) Cut It Back To 6 Inches
How To Develop Espalier Trees

• Tie The Tips That Grow Vertically To These Support
How To Develop Espalier Trees

• Keep Pinching Off Any Buds That Grow In Unwanted Places
How To Develop Espalier Trees

• Repeat This Process To Develop A Tree Growing Flat Against The Framework
How To Develop Espalier Trees

• Each Spring, Cut Back A Quarter Of The New Growth
How To Develop Espalier Trees

• Cut Back On Any Weaker Shoots Or Shoots That Interfere With The Framework
How To Develop Espalier Trees

• With Espalier Fruit Trees, Follow Pruning Instructions To Force Fruit Growth As With Other Fruit Trees
How To Develop Espalier Trees

• It Take 5-10 Years To Grow And Training Even Simple Trees
How To Develop Espalier Trees

• Basic Maintenance Is A Must, To Keep An Espalier Attractive
How To Develop Espalier Trees

• Although They Require Work, These Smaller Trees Are Much Easier To Grow And Harvest
Espaliered Fruit Trees Make Excellent And Useful Decorations For Bare Wall Spaces On A Home, Garage Or Garden Building
An Espaliered Tree Trained To A Trellis Makes An Attractive Divider Between A Vegetable And Flower Garden, Or A Screen To Hide The Compost Pile
There Are Many Espalier Designs, With Fancy Names
Some Fine Examples Of Espalier Are At These Gardens
William Paca Gardens
Annapolis, MD
Biltmore Estates
Ashville NC
University Of British Columbia
Vancouver BC
The Single Vertical Cordon
The Single Horizontal Cordon
Oblique Palmette With Fixed Limbs
The Belgian Fence
The Candelabra
The Double Candelabra
Arches
Special Forms
UBC Espalier Tree Photo Album
by Larry Sagers
Longwood Gardens
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