

D. HAZELNUTS or filberts: *Corylus avellana*

1. Statistics

What is the difference between a filbert and a hazelnut?

Nothing: Filbert is an Oregon name. Hazelnut is the world's name for the same nut.

Many kinds of hazelnuts: Turkish, Red leaf, contorted and nut variety

There is a wild hazelnut that grows in the woods. Hardy down to 10 F.

When do hazelnuts bloom and what is so unique about the bloom?

January and February

See Growing Hazelnuts in the PNW, EC 1219.

2. Varieties:

- a. Butler - pollinizer
- b. Ennis – best yielder (prone to Eastern Filbert Blight (EFB))
- c. Barcelona – standard, fat and round nut
- d. Daviana – pollinizer, prone to Eastern Filbert Blight (EFB), long nut
- e. Lewis – new, semi EFB resistant
- f. Clark – new, semi EFB resistant
- g. Halls Giant - pollinizer

3. Spacing: 19X19 feet

4. Fertilization: 1 pounds N per tree. Boron every spring in May, applied foliarly to the leaves. Needs good light.

Give out fertilizer guide, Evaluating Home Fruit, Vegetable, and Ornamental Gardens, FG 66.

5. Diseases: Eastern Filbert Blight, Bacterial Blight
-EFB status and contorted filbert trees

Review the Controlling Diseases and Insects in Home Orchard brochure, EC 631.

FILBERT - CULTIVAR SUSCEPTIBILITY CHART

<u>CULTIVAR</u>	<u>BACTERIA BLIGHT^a</u>	<u>EASTERN FILBERT BLIGHT^b</u>
Barcelona	HS	+
Butler	?	+++
Casina (W4-6)	?	?
Daviana	I	+++
Du Chilly	S	++
Ennis	?	+++
Hall's Giant	R	+
Negret	I	?
OSU 43-58	?	?
Tonda di Giffoni	I	?
Tonda Gentile delle Langhe	?	?
Tonda Romana	?	?

a HS = Highly Susceptible, S = Susceptible, I = Intermediate,
R = Resistant

b + = Least Susceptible, ++ = Moderately Susceptible,
+++ = Very Susceptible

? Unknown

6. Insects: filbertworm @ June 15, aphids – almost gone, leafroller @ June 1

Place pheromone traps out the middle of June.

Why do we use pheromone traps?

To know when the insects emerge. To be more precise in spraying for the insects and so growers can use less pesticides.

Review the Controlling Diseases and Insects in Home Orchard brochure, EC 631.

7. Pruning: Usually trained to multiple leaders, remove suckers from the roots two times a year.

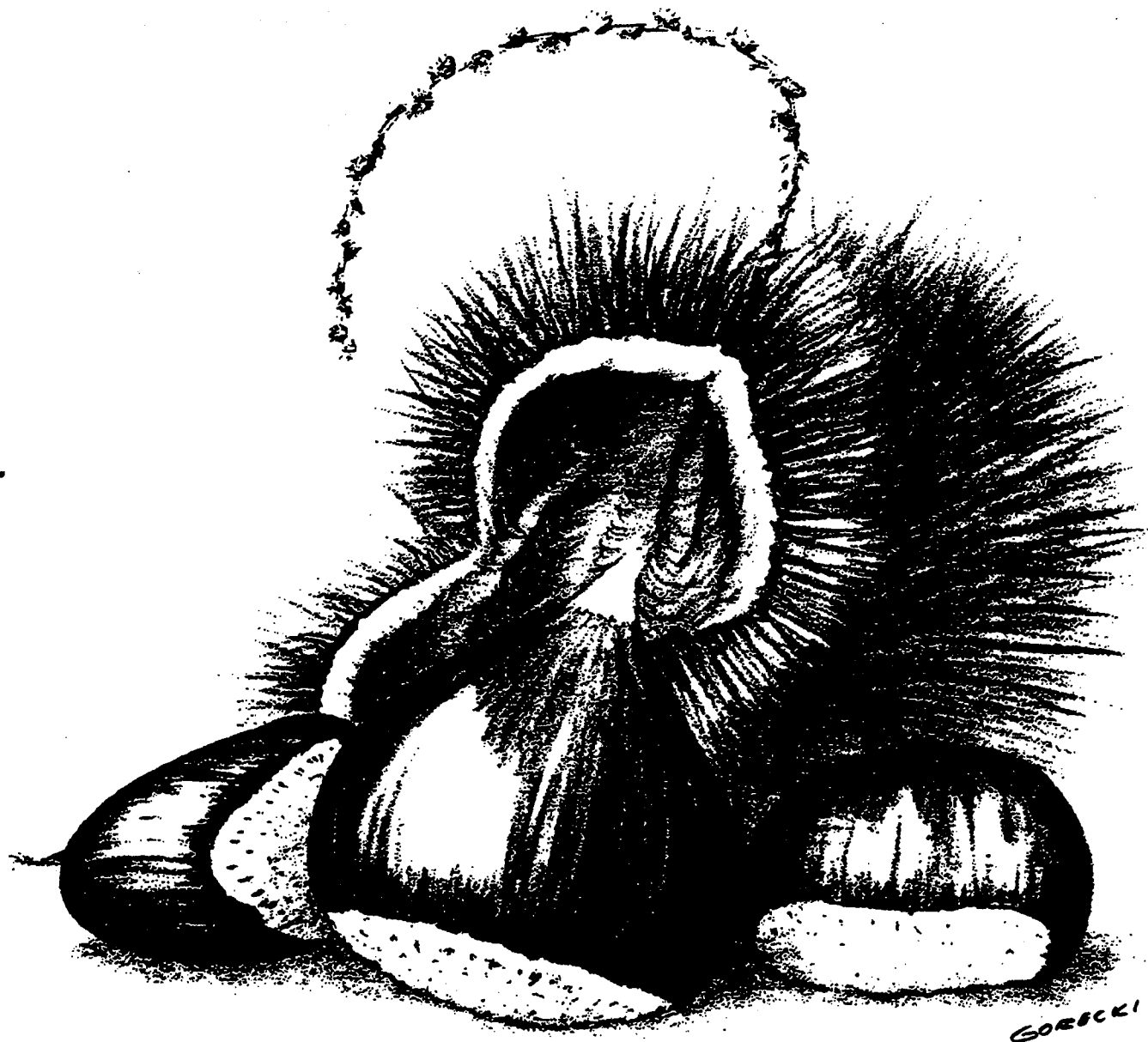
See Pruning Basic materials.

8.-Propagation:

- a. seed
- b. layering
- c. stooling bed
- d. root sucker

9. Harvest: Last September or early October to November

GROWING CHESTNUTS



G. CHESTNUTS (Castanea spp.)

1. Statistics: Are chestnuts being grown successfully in Oregon? They bear in three to six years.

No. Have a major bacterial problem.

See Growing Chestnuts.

2.. Varieties: Some choice hybrids becoming available.

- a. European – very susceptible to blight. Not much grown here.
- b. Chinese – blight resistant. Bears in third year. Needs good drainage. Moderate quality. Most self sterile and need pollinizer. Late flowering.
- c. American – small nuts. Very prone to blight. Excellent flavor.
- d. Hybrids – varying degrees of resistance to the blight. Often very large nuts. Colossal, Dunstan's, Layeroka. Yields still not known.

3. Spacing: 20-40 feet

4. General care: Minimal pruning (see Pruning Basics materials) , irrigate the first 5-10 years.

Reacts well to manure or full range of fertilizers.

Give out fertilizer guide, Evaluating Home Fruit, Vegetable, and Ornamental Gardens, FG 66.

5. Insects **and** Diseases: Review the Controlling Diseases and Insects in Home Orchard

brochure, EC 631.

Fairly insect free.

The bacterial problem is becoming a major problem. Not sure what is causing the problem yet.

6. Propagation: seed, grafting, root suckers

7. Harvest: October and November

OTHER TREE FRUITS TO CONSIDER

-fruit that can be grown here MOST of the time

1. Fig

A tropical or very warm type of fruit. It can produce two crops per year. One in early summer and one in late fall. Can grow up to 6 feet per year. Has a strong root system.

Varieties:

- Brown Turkey
- Desert King
- Mission (Black)

Fertilizer: Apply 1- 1½ pounds per year in early spring.

If the tree sheds its leaves early (August), it may be due to lack of N or over irrigation.

Soil: should NOT be alkaline

Pollination: only Calimyrria requires a pollinizer.

Pruning: Prune to an open V. Often early spring freezes will keep the fig tree from getting too tall. Every 6 years a hard freeze will kill the above ground portions. The next spring the growth will come back from the strong roots.

Insect and Diseases:

Bacterial fruit rot

Harvest: If the fruit is milky, it is not ripe.

2. Persimmons (Diospyros spp.) - over 200 species.

Statistics: Can be grown in Willamette Valley, but is a very warm climate fruit.

Deciduous plant with white flowers.

Usually 15-50 foot tall.

Needs deep, well drained soils. Soil pH of 5.0-6.5.

Starts bearing at year 4-6.

It has a long tap root.

Varieties: Varieties trees planted and producing around the three county area.

- Oriental (Japanese) (*Diospyros kaki*). Very popular due to its smaller tree size.. Hardy down to 0 F. Some are self fertile. Some need to have pollinators.

American persimmon (*Diospyros virginia*). Grown in eastern United States. It is hardier, down to at least minus -5 F. Small tree It has both female and male parts on the tree.

What is the difference between astringent and non-astringent persimmons?

Astringent: American varieties, very acid in taste. Can cause "pucker". Wait until fruit has gone through a good, hard frost. They are not edible until after a frost.

Non astringent: eaten when the fruit is firm and orange. The fruit is usually large and firm.

Which type fruit is better?

Personal choice!

Oriental Varieties:

Hachiya/Hachia – soft fruit, large – astringent

Tanemaski – medium size – astringent

Chocolate – small, astringent

Eureka – medium, astringent

Tamopan – flat, thick skinned – non astringent

Fuyu (Afuya) – hard, medium, - non astringent

American Varieties: can be grown from seed.

Meader

Early Golden

Griffith

John Rick

Woodbright

Miller

Spacing: 10-30 feet apart.

Soil: well drained soils. They do not tolerate poorly drained soils. Often very drought tolerant.

Fertility: Medium fertilizer applications.

Insects: Very few.

Disease: Very few. Some gray mold.

Propagation: Seed

Pollination: no pollinator need for American persimmon. Recommended pollinizer for the Oriental persimmons.

Pruning: prune out dead wood. Open up the center for good sun light penetration.

Irrigation: Excessive irrigation will cause the fruit to drop.

Harvest: late September to late October.

Some may need to be harvested with a hand pruner or shear.

3. Mulberry (*Morus* spp.)

Trees grow 30 foot tall.

Fruit is different, like a semi green blackberry on a tree, that turns black and reddish in color. Very fast growing.

The tree is self fertile – good pollen. No pollinator needed.

Fruit ripen – Augustish.

4. Paw paw (*Asimina triloba*)

Small trees. Grown and breed extensively in Iowa. Lots of research and varieties developed there.

Very temperature sensitive.

Bloom – May

Pollination: needs at least two different varieties.

Varieties: Sun Flower, Overlease, Rebecca Gold, Ford Amand

5. Elderberry (*Sabucus species*)

Combination between a small fruit berry and a tree fruit.

Grown as a small bush or a tree.

Berries are dark purple with a white sheen.

Varieties: Yellow varigated, Adair's, John's,

Needs full sun.

Grown on poor soils.

Two kinds: purple – edible
 red - poisonous

6. Quince

Statistics: grows in the Willamette Valley. Blooms very early so may have frost damage. Often called a very hard, fuzzy apple pear. They are very fragrant after picking. The fruit is very hard, yet they bruise easily. The "fuzz" rubs off.

Varieties:

Orange

Pineapple

Apple

Smyra

Champion

Cookies Jumbo

Spacing: 8 to 16 feet

Bloom : Very early. Similar to pears.

Soil: will stand wetter soils

Fertilizer: very little

Diseases: scab and fire blight

Insects: leaf pests
 codling moth

Harvest: September or October

Tree Fruit Bark Protection

There are many ways to protect the young bark of fruit trees from sunburn in the spring and summer and from bright sunshine in the winter. Winter sun scald occurs when the cold tree bark is exposed to warm temperatures. The warmth causes the light exposed tissue to break dormancy. The warmed tissue then dehydrates due to water not being available and dies.

Use either exterior latex paint or whitewash to protect the bark of young fruit and ornamental trees. The protective materials are applied primarily to the south side of the tree, but can be applied all the way around the bark and up to two feet high.

Latex Paint

1 gallon exterior white latex paint
1 gallon water

Mix equal parts of paint and water before applying to tree bark. The paint can be applied with a paint brush, sponge, air painter or with an old glove.

Whitewash

5 lbs. hydrated lime
1 gallon water
1-1/2 lbs. salt
2 quarts - warm water

Stir lime into gallon of water. Let set overnight. Dissolve salt into the 2 quarts of warm water. Gradually stir salt water into lime water. Stir every 10 minutes while painting.

Note: Make only as much material as needed to protect the tree bark so none is left over at the end of this task. These materials, once mixed, are hard to keep or store.

Prepared by Ross Penhallegon, Commercial Horticulture Faculty
G:/LCE Pubs/LC704 Tree Fruit Bark Protection
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STONE FRUITS

CONTROL CALENDAR FOR MAJOR PESTS AND DISEASES

Dormant Period

- OCTOBER.....Cherry dead bud and peach twig blight (coryneum).
 MID-DECEMBER.....Peach leaf curl, bacterial canker.
 MID-JANUARY.....Repeat cherry dead bud and peach leaf curl sprays.
 Scale, aphids, mite eggs, overwintering peach twig borer.

Bloom

- LATE MARCH-.....Brown rot blossom blight sprays at popcorn, f
 EARLY APRIL bloom, and petal fall.

Post Bloom

- LATE APRIL-MAY.....Cherry leaf spot, synetta beetles, leaf rollers, oriental fruit moth.
 MAY-JUNE.....Aphids, leaf rollers, peach twig borers.
 JUNE TO.....Cherry fruit fly with orchard traps or Extension
 PRE-HARVEST trapping notice.
 Watch for cherry slugs, aphids, scale crawlers, and mites.
 PRE-HARVEST.....Fruit brown rot if it rains.
 7 TO 14 DAYS
 MID-JULY AND.....Peach tree borer, directed spray to trunks of all
 MID-AUGUST fruit on peach root.



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APPLES AND PEARS

CONTROL CALENDAR FOR MAJOR PESTS AND DISEASES

Dormant Period

OCTOBER.....Anthracnose, perennial or European canker. Prune out infected wood and repeat control in mid-winter.

JANUARY-FEBRUARY.....Scale insects, pear psylla.

Delayed Dormant

MARCH.....Rosy apple aphid eggs on apples, European red mite and eggs, scale, and blossom blast on pears.

Pre-bloom and Bloom

LATE MARCH.....Scab and mildew. Leafrollers occasional problem.
EARLY APRIL Start spraying in pre-pink and continue at 7- to 10-day intervals through bloom. Avoid insecticides during bloom.

Summer Cover Sprays

MAY.....Start codling moth sprays two to three weeks after petal fall (when traps average five per week) or Extension notice.

Continue mildew control on susceptible apple and pear varieties. Continue scab control with summer rains.

JUNE-SEPTEMBER.....Continue codling moth control at about three-week intervals (follow labels, check traps), psylla.

Watch for scale, aphids, mites, leaf rollers and tentiform leafminer larvae in leaves.

LATE JUNE.....Control tentiform leafminer, pear slug.
EARLY JULY

LATE JULY-OCTOBER.....Control apple maggot if there is a history or traps in your orchard indicate its presence.

