virginia home food production

FACT SHEET

DEPARTMENT OF HORTICULTURE

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MULCHES FOR THE HOME GARDEN

Mulching is a practice every home gardener should consider. Mulches reduce weed growth, maintain uniform moisture conditions, can favorably modify soil temperatures (depending on material), reduce erosion, reduce water loss and water requirements, reduce splash of soils and spread of disease, keep fruiting parts cleaner, reduce nutrient loss and fertilizer requirements, add humus for more workable soil, and add organic matter to the soil when organic materials are turned under.

Mulching involves covering the soil around plants with protective material. Mulches can be either organic or inorganic (see attached table).

Most organic mulches should be applied after plants are well established - 4 to 6 inches tall. Cultivate out all weeds before mulching. Spread material evenly between plants to a depth of 1 to 6 inches, depending on the type of material and availability. (See table on Mulching Materials.)

Apply organic mulches when there is reasonably good soil moisture and just before the weather turns hot in the summer. Putting down mulch on dry ground may slow down infiltration of rain water as the mulch tends to absorb moisture.

Inorganic mulches such as black plastic and paper mulches are applied prior to planting. Black plastic and other filmlike materials should be applied on land that has been completely prepared for planting and has a high moisture level. Place material over the row to be planted, then bury the edges to prevent it from blowing away. Cut slits for seeds or transplants. A few additional slits can be made to allow rain water to infiltrate.

The following table shows how much sawdust or similar organic material is needed to cover 100 sq. ft. to various depths.

Depth (")	To cover 100 Sq. Ft.
6	2 cu. yds.
4	35 cu. ft.
3	1 cu. yd.
2	18 cu. ft.
1	9 cu. ft.
1/4	2 cu. ft.
1/8	1 cu. ft.

1 cubic yard = 27 cubic feet
(a box 3'x3'x3')

[1]Reprinted with permission from Ortho Books "All About Vegetables" Copyright (C) 1973. Chevron Chemical Company.

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Mulching Materials

Materials	Depth In Inches	Weed Control	Rate of Decomposition	Comments
ORGANIC MULCHES				(As much as -10°F to soil temperatures)
Barks				
Fir	2-3	b	slow	stays in place
Pine	2-3	b	slow	stays in place
Shreaded	2-3	b	medium	stays in place
Tan	2-3	a	medium	stays in place
Compost	2-3	c	fast	improves soil
Corncobs, ground	3-4	c	fast	easily blown
Grass clippings	2	b	fast	forms a mat, crusts, don't use crabgrass seeds, avoid weed seed heads, and 2,4-D sprayed materials
Hay or Straw	3-4	b	fast	stays in place improves soil
Hulls				
Buckwheat	3-4	c	medium	easily blown
Cocoa	3-4	c	medium	easily blown
Peanut	2-3	b	medium	stays in place
Leaves	2-3	b	fast	easily blown improves soil
Peat Moss				
Horticulture-grade	2-3	c	medium	slightly acid, forms a crust
Chunky	2-3	b	medium	tends to move
Pine Needles	2-3	b	slow	stays in place slightly acid
Wood				
Sawdust	2	b	medium	may tie up soil N, add ½ lb. actual N per 10 cu. ft., old fermented sawdust may be acid forming - check pH
Chips	2	b	slow	stays in place
Fiber	2	b	medium	tends to crust

a = Excellent
b = Good
c = Fair

Mulching Materials (Cont.)

Materials	Depth in Inches	Weed Control	Rate of Decomposition	Comments
INORGANIC MULCHES				
Gravel	1	c	none	permanent
Marble chips	1	c	none	not recommended for acid-loving plants
Sand	1	c	none	subject to erosion
FILMS				
Black Plastic	1 layer	a	very slow	good for vegetables, secure edges, (+8°F to soil temp.)
Clear Plastic	1 layer	c- (poor)	very slow	same (+10°F to soil temp.)
Paper				
Newspaper	2 layers	b	fast	cover with organic mulch
Mulching Paper	1 layer	a	slow	same (-8°F to soil temp.)
Aluminum coated plastic & foil	1 layer	a	very slow	secure edges (-10°F to soil temp.)

a = Excellent
b = Good
c = Fair

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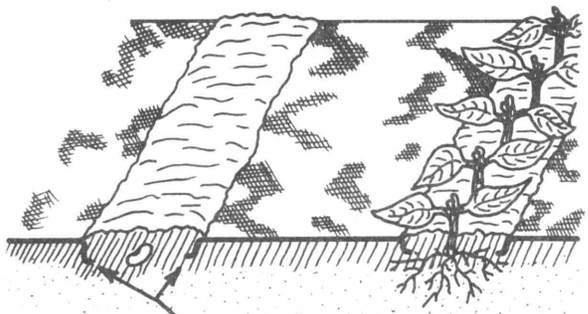
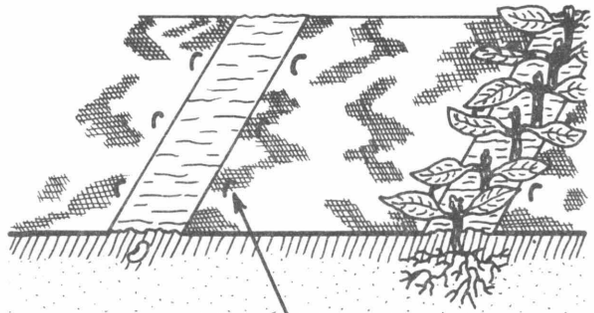
USING BLACK PLASTIC MULCH

For Seeded Rows

Lay Before Planting ...or... Lay After Planting





For Transplants

Continuous Sheet
Over Planting Area ...or... Strips Over Rows
With Organic Mulch