RASPBERRIES

THINGS TO CONSIDER OR DO BEFORE PLANTING, DURING PLANTING AND AFTER PLANTING

Site (Soil)

Full Sun 8 hours of uninterrupted light

Check Soil for Rocks, Gravel, or Sand streaks

Identify weeds on site both annuals and perennials

Look for evidence of Rodents such as Mice, Voles, Gophers, and Squirrels

Take soil samples, use a Lab in the West such as USU, BYU, Western Lab, or Stukenholtz

Plow or disc or rototill site before ordering plants

Irrigation System (Water)

Plan and install irrigation system before plants arrive (get help if necessary)

Do not rely on district water (canal water)

Use a drip Irrigation system - avoid sprinklers which increase weed and disease pressure.

(If possible, irrigate site the summer before planting and spray weeds the fall before ordering plants.)

Plants / Planting

Floricane and Primocane growing systems - know which system you prefer to grow.

Order plants from a commercial nursery in November or December before planting.

DO NOT dig suckers from a friend.

Have Soil (beds) ready before plants arrive.

Have Irrigation system installed and ready before plants arrive.

Mark rows and dig planting trench 4-6 inches deep either at or before planting.

Water prepared trench before planting.

DO NOT let plants dry out during planting.

DO NOT plant berry plants TOO DEEP - only 2-3 INCHES (MAX) soil above roots.

Stretch roots lengthwise in trench.

Firm soil around plant crown and above roots (DO NOT PACK SOIL).

After Planting

Water plants well to help soil settle around roots. KEEP WET.

Clip canes to about 2 inches or less after soil settles.

DO NOT FORGET YOUR RASPBERRY PLANTS CHECK ON THEM DAILY AFTER PLANTING.

Fertilize new berries at ½ typical rate in JUNE.

End of Season

After a good hard freeze, mow Primocane (everbearing) raspberries down to about 2" tall. With floricane berries thin out or prune the spent canes in the spring. Be sure to rake and discard all clipped canes. There are many YouTube videos of pruning floricanes. A good one is by David Handley of the Maine Extension.

Fertilizer N-P-K

The second year and all following years, fertilize in early spring and before bloom.

Use a rate of 2.5 lbs. of Nitrogen per 100 feet of row in early spring. (That's about 2 T. per plant sprinkled around the plant.)

And 2.5 lbs. of Nitrogen per 100 feet of row in early June.

Ammonium Sulfate 21-0-0 24 S, Urea 42-0-0

General purpose Fertilizer 16-16-8 20-20-20 21- 6- 20, etc.

Liquid fertilizers 8-8-8 3-18-18 10-0-0-6 Fe etc. Many others

Iron Chelate 6% Iron deficiency is common in Utah (Treat early in Spring)

INSECTS

Raspberry Horn tail

Spider mites (two spot or red)

Crown Borer

SWD (Spotted Wing Drosophila) *

Stink bugs (Green and Marmorated) *

General insects: earwigs, wasps, box elder bugs, grasshoppers, slugs and snails etc.

Fungi / Bacteria/ Virus

Powdery mildew (Yellow berries) after rain or hot humid days

Gray mold Botrytis (Yellow or red raspberries, and blackberries following wet weather).

Phytophthora root rot (Keeping soil too wet)

Pseudomonas syringe Bacterial disease late season following cool wet weather

Tomato ring spot / Crumble berry (Virus) Planting in the same rows as tomatoes or the year following tomatoes, or infected berries

Weeds

Weed control will cost more money than any pesticide spray.

Annuals and Perennials compete for water and nutrients in Raspberries.

Use soil active sprays in fall and spring for annual weeds, and contact sprays for perennial weeds in season.

Marketing Berries (determine before you plant your berry patch)

Fruit stand of your own

Sell to Fruit stands

Farmer Markets

Make Jams, Jelly, and Syrup (Need Commercial Kitchen Certification and recipe) *

Grocery Stores (GAP certified) *

Pick your own - be brave!

Remember you will need pickers, buckets, a sorting table, scale*, flats, cups, a cooler and bees. Something to spray with and a heavy duty mower to mow your berries.

To comply is very involved and expensive \$.

^{*}SWD could become our worst pest

^{*}Marmorated Brown Stink Bug is a new destructive pest in Utah.

^{*}The Health Department inspects and certifies Commercial Kitchens

^{*}GAP, Good Agricultural Practices, certification comes through the Department of Agriculture

^{*}Scale will need to be certified by the county or licensed company

Nursery List

Nourse Farms <u>www.noursefarms.com</u>
Ken M. Spooner Nursery <u>www.spoonerfarms.com</u>
Sakuma Brothers <u>www.sakumabros.com</u>

Hartman Plant Company <u>www.hartmanplantcompany.com</u>

Cornell University www.nysaes.cals.cornell.edu (Nursery Guide for small fruit crops)

Utah State University Brent Black* www.brent.black@usu.edu

Small Fruit Specialist Utah State University (435) 797-2173

Chemical information web sites

CDMS.net Labels, Safety data sheets, and Chemical Companies web sites

Ipm.ucanr.edu/ University of California IPM (integrated Pest Control Management)

Green book www.greenbook.net click on manufactures then labels

Utah State University www.utahpests.usu.edu/ipm

Organic Listings

Omri <u>www.omri.org</u>
Washington State Organic <u>www.agr.wa.gov</u>

California Organics cdfa Organic Registrations
USDA usda Organic Registrations

Companies in Utah to get Chemical supplies

Steve Regan Spanish Fork, Salt Lake

IFA Provo, American Fork, Spanish Fork

Cal Ranch Spanish Fork, American Fork

Companies to get Irrigation supplies

Sprinkler Supply Spanish Fork www.sprinklersupplyco.com
Mountainland, Orem www.mountainlandsupply.com

Berryhill Irrigation Supply www.berryhilldrip.com

General Supplies Buckets, plastic goods, packing materials, flats, cups, signs, etc.

Indiana Berry & Plant guide www.indianaberry.com
HR Spinner Company www.hrspinner.com

Contact information

Wayne & Joyce McBride: mcbridejw@yahoo.com look for us on Facebook

Call or text: 801-669-1657

Or visit our patch: McBride Briar Patch

1849 S. 2100 W.

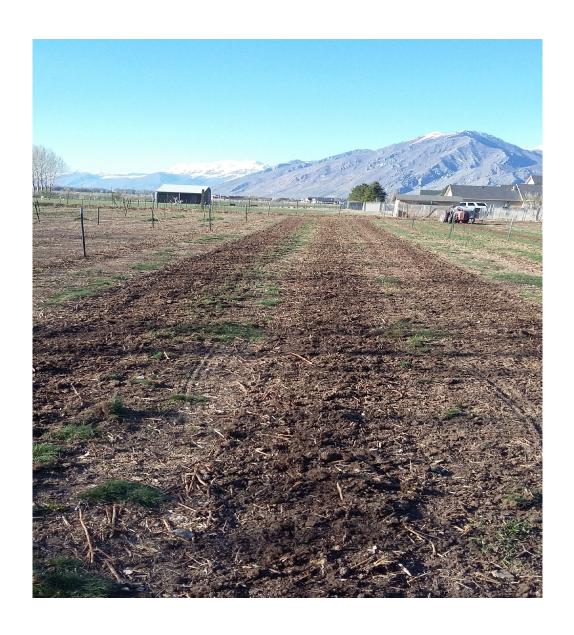
Mapleton, Utah 84664

RASPBERRIES

Things to consider or do before planting, during planting, and after planting



Site



Irrigation system





GROWING SYSTEMS Floricane & Primocane





Anne & Polka Raspberry Varieties





Joan J and Caroline Raspberry Varieties

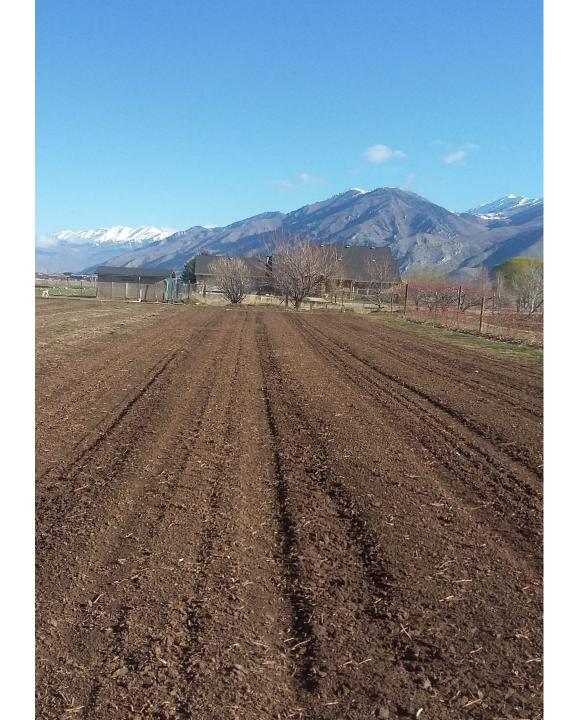




Add compost to rows prior to tilling



Prepared Site



PLANTING
Trench & String
4-6" trench



Pre-water



Put plants in water to keep them from drying out. (We add 1T Chelated Iron per 1 gallon water.)



Stretch Roots Lengthwise



Stretch roots in the trench



Firm soil around plant and roots (Do Not Pack)



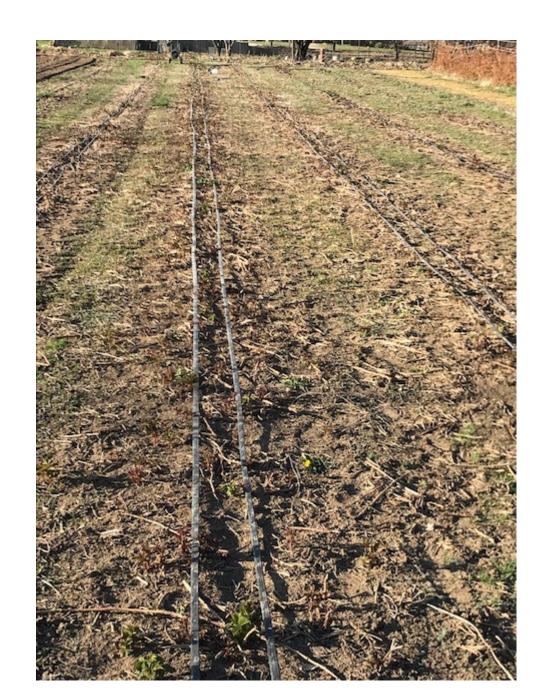
Water thoroughly after planting



One drip hose for new plantings



Two hoses for mature plants



Irrigation System Drip Tape

Use an 8 mil drip tape, with 4" emitter spacing. Have 2 drip lines that run the length of the row 8" apart per mature row.

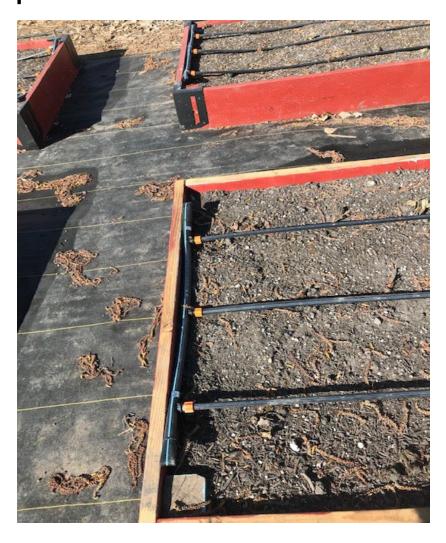
Secure a water source at one end of the row and a return line at the other end to ensure even water pressure.

Talk to an irrigation specialist to help you design the system.



Strawberry boxes show irrigation hoses with return for constant water pressure





Prune Raspberry Cane - 2" or less after soil settles, up to a week after planting



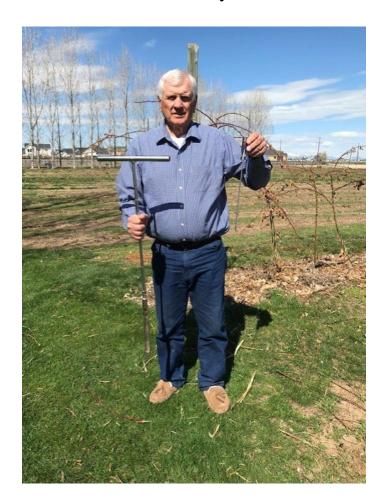
Long Handled Lopers Keep sharpened for a clean cut



Early season growth – Raspberries about 1 foot tall



Soil Probe and Long Screw Driver To test the soil moisture, insert probe or screw driver close to plant. If they go into the soil easily, moisture is present.



Tie canes with baling twine



END OF SEASON Mow or cut down primocane canes



Rake up & Dispose of Canes





Fertilizers

NPK

Ammonium Sulfate 21-0-0-24S

Urea 42-0-0

General Purpose Fertilizers

16-16-8

20-20-20

21-6-20

Liquid Fertilizers

8-8-8

3-18-18

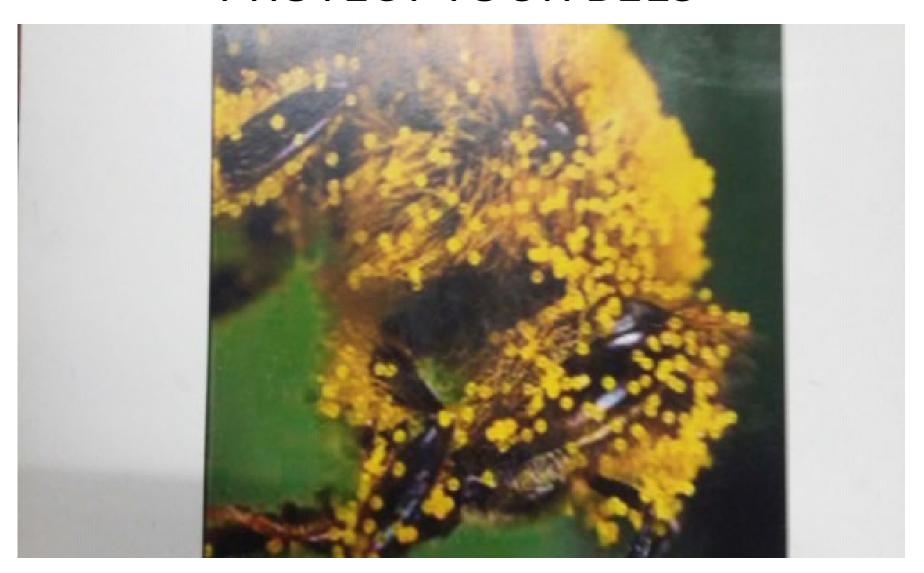
And many others

6% iron chelate

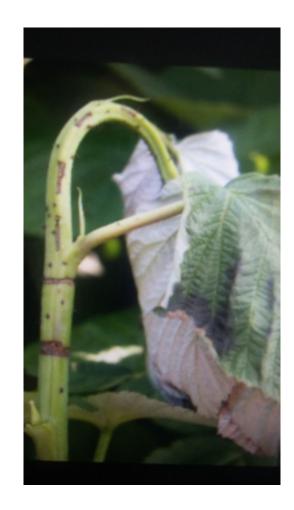
Pesticides Conventional or Organic

- Contact your county Extension Agent for recommendations
 - Follow the label on the product
 - Do not spray when the bees are in the patch (spray after sundown or before sunrise)
 - Use personal protection equipment
 - Rotate products during the season

PROTECT YOUR BEES



PESTS Raspberry Horntail

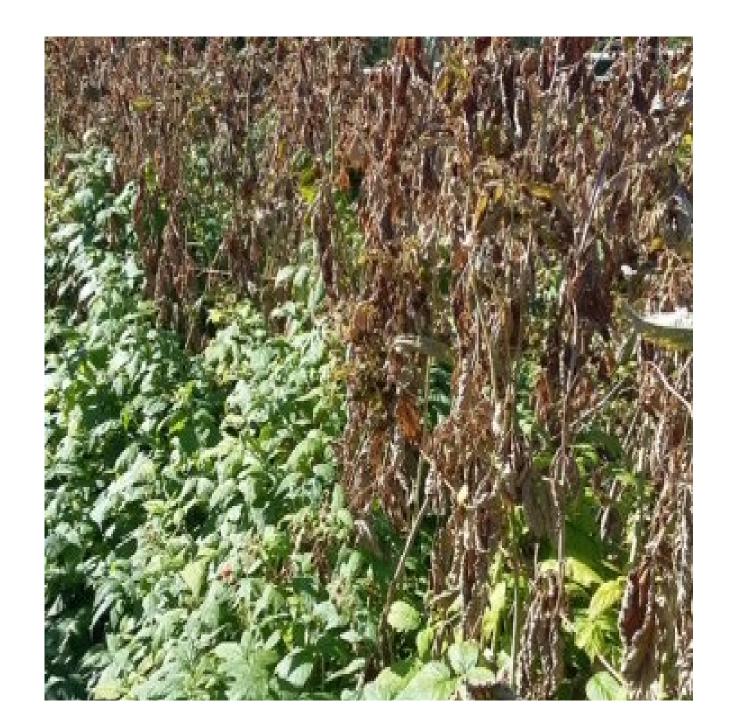




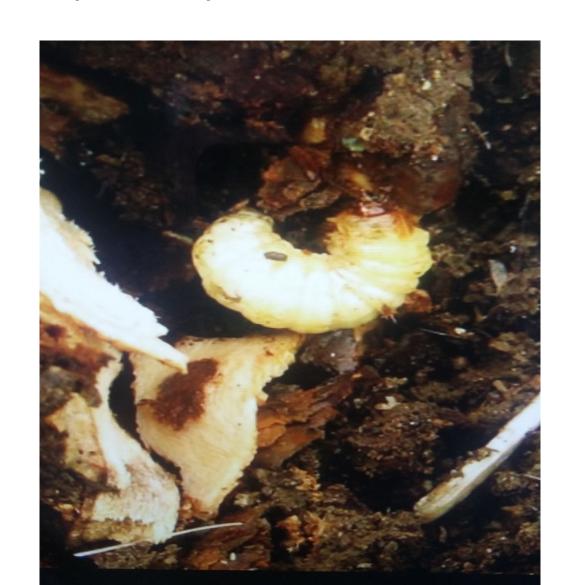
Two Spot Spider Mites



Raspberries with Spider mite damage



Raspberry Crown Borer



SWD (Spotted Wing Drosophila) & Brown Marmorated Stink Bug





Common Raspberry Insects



PATHOGENS Gray Mold Botrytis on yellow raspberries



PERENNIAL WEEDS Field Bindweed (Morning Glory)





Weed Sprayer with Plastic Shield To spot spray weeds between raspberry plants



Quack Grass and Thistle





White Top (or Hoary Crest)





White Top Root System



Questions?



Thank you for your Time

Feel free to contact us

- Phone or text 801-669-1657
- Email mcbridejw@yahoo.com

Or come visit our patch at: 1849 S. 2100 W. Mapleton, Utah