



**Varieties:** Green peanut production starts with variety selection because the objective is to grow the highest yielding variety that you can successfully market. Green peanut markets can be locally specialized. That is, consumer acceptance and marketability is influenced by factors such as pod size, shape, kernel skin color, multi-kernel pods, and flavor. Despite this influence of tradition, a bright-hulled peanut with good flavor usually sells well and develops a market.

**Valencia** types - Some consumers prefer the distinctive flavor, multi-kernel pod characteristics, and red seed coat of Valencia peanuts. In general Valencia peanuts have lower yield than Virginia types and their smaller pod size is also a disadvantage in hand picking.

**Georgia Red** - Tends to yield higher and have darker red seed coat than other Valencia types.

**Valencia A and Valencia C** - These two varieties are very similar in yield and pod characteristics.

**Virginia types** - Virginia type peanuts are desirable in the green market because of their high yield, large pod size and good flavor.

**Gregory** - This variety's large pods and bright hull make it an excellent choice for green peanut production. Gregory also has moderate tomato spotted wilt resistance. Gregory has a high calcium requirement.

**NC 7** - This is a large-kerneled, bright-hulled peanut with excellent flavor. It has been a standard in the green market despite not having the highest yield.

**NC V11** - High yield and some virus resistance, but a smaller pod than Gregory or NC 7.

**Va 92R** - This variety is a high-yielding Virginia type under S. C. conditions. It typically outyields NC 7 by about 10%. However, Va 92R kernel size is smaller than NC 7 and the hull is darker.

**Runner types** - Runner type peanuts get their name from the fact that they tend to have a prostrate or running growth habit. These are the "peanut butter peanuts" and although they have excellent flavor, most varieties are too small for efficient hand-picking.

**C99R** - This variety has a relatively large pod for a runner type and has the advantage of high yield and good tomato spotted wilt resistance. Its disadvantage is slower maturity.

**Land Rotation:** It is very important to maintain a minimum 3-year rotation (2 years out of peanuts or any other legume, 3 years better). Rotation is the basis for controlling pod disease; controlling pod disease is the key to a bright hull; and a bright hull is the key to marketability.

**Planting Date:** Green peanuts are planted for the market window rather than for optimal production conditions. The ideal time to plant peanuts in S. C. is the first week of May. This timing minimizes damage from tomato spotted wilt virus and gives the shortest production interval (about 100 days after planting). But since some peanuts have to be planted much earlier (late-March to April) to hit the best market price window, they will have more tomato spotted wilt virus damage and a longer development period. See virus management below.

**Seeding Rate:** Plant 5 seed per row foot. A good stand and rapid ground cover helps control tomato spotted wilt virus.

**Row Spacing:** Conventional row spacing is 38", narrower row spacing and/or twin-row production help to reduce tomato spotted wilt virus by covering the ground more quickly.

**Land Preparation:** Traditional bottom plowing suppresses weed germination and turns down potash to

bottom plowing. Subsoil & bed works so you can plant peanuts just like cotton. You can also plant flat. We can control diseases without bottom plowing. Strip-till has given equivalent yields on lighter soils and we have been able to control weeds without preplant incorporated (PPI) herbicides under irrigated strip-tillage conditions. Strip-tillage into a killed cover crop reduces tomato spotted wilt virus, but also results in more residue in the inverted vines after digging.

**Fertility:** Use *Rhizobium* inoculant on new peanut land. Liquid in-furrow inoculant or seed treatments are recommended since in-furrow granular inoculants usually stop-up in the delivery tube. Nitrogen application (30 - 50 lb/ac) is recommended on new ground if the inoculant fails.

pH 5.8 - 6.2 target

P and K are applied by soil test. Peanuts respond best to residual fertilizer. Adequate residual potash is especially important if you don't bottom plow. Excess K in the pegging zone interferes with Ca uptake causing pod rot, so avoid potash application in the spring if you can't turn it under.

Calcium - High soil Ca is critical to quality peanut production, especially for Virginia types. Apply 300 lb/ac of Ca (1500 lb landplaster) at first bloom to reduce pod rot and brighten hulls. Half this amount can be used if it is applied in a band over the pegging zone. Fall liming is also beneficial in maintaining at least 600 lb Ca/ac and a 3:1 Ca to K ratio in the pegging zone.

Boron - Apply 0.5 lb B/ac (2½ lb/ac Solubor) at early bloom or split into two 0.25 lb/ac applications. Boron can be tank-mixed with fungicide.

Zinc toxicity - Peanuts are very sensitive to zinc. Stunted plants with split stems are a sign of zinc toxicity. Check zinc levels on any new land prior to planting, especially in old peach orchard fields or where zinc has been used for high yield corn production. Zinc toxicity also occurs on old building sites or around stock pens which had galvanized roofs. Soil test zinc levels as low as 5 lb/ac can cause toxicity when the soil pH is below 6.0. Liming to increase soil pH can reduce zinc toxicity in contaminated soils.

**Irrigation:** Green peanuts' greatest need for water is from pegging until a week before digging. A rule of thumb is to supply 1.5 inches per week minus whatever rainfall you get. Irrigation is critical in peanut production because it allows you to take advantage of other inputs. Irrigation is used to water in herbicides (e.g. Prowl, Sonalan, Dual, Cadre); fungicides (Abound, Folicur); and insecticide (Lorsban). Without timely rain or irrigation these inputs are much less effective.

**Weed Control:** Timing is everything in weed control. Good weed control is a must to reduce harvest losses. There are a lot of possible variations in a weed control program for the many combinations of problem weeds, but an example program would be: Prowl or Sonalan PPI; Dual PRE (watered in); Gramoxone + Basagran to kill the first flush of small weeds; or Cadre (note 90 day preharvest interval); possibly followed by 2,4-DB (Butyrac) for escape broadleaves or Select for escape grasses. See the weed response chart.

**Note:** Excessive rates of DNA herbicides (Prowl, Sonalan) in the pegging zone cause severe peg injury and yield reduction.

#### **Disease Control:**

**Tomato spotted wilt virus (TSWV).** This virus is transmitted to peanuts by thrips. TSWV reduces yield and causes shriveled, misshapen pods. The disease is more of a problem on green peanuts due to the use of early planting dates followed by a sequence of later plantings.

#### **TSWV Control: "It's all over when the planter leaves the field":**

1. Varietal Resistant - The only partially resistant varieties which are suitable for the green market are Gregory, NC V11, and C99R.
2. Planting Date "window" - Planting the first two weeks of May reduces TSWV, but this is not practical for green production. Staggered planting dates in the same field increase virus problems on later plantings.
3. Seeding Rate - 5/row ft.
4. Thimet In-furrow - Thimet 20 G (5 lb/ac) reduces TSWV injury
5. Strip-tillage - reduces TSWV in SC
6. Twin-row - faster ground cover means less virus.

## WEED RESPONSE TO HERBICIDES IN PEANUT

	PPI			PPI / PRE				POSTEMERGENCE										
	Prowl	Sonalan	Vernam	Dual	Lasso	Frontier	Strongarm	Gramoxone+ Basagran	Basagran	Butyrac (2,4-DB)	Blazer	Storm	Tough + 2,4-DB	Poast	Select	Pursuit	Cadre*	Classic
<b>Perennials</b>																		
bermudagrass	P	P	P	P	P	P	P	P	P	P	P	P	P	F-G	G	P	P	P
rhizome johnsongrass	P	P	P	P	P	P	P	P	P	P	P	P	P	G	G	P	F-G	P
purple nutsedge	P	P	F-G	P	P	P	F	F	P	P	P	P	P	P	P	G	G-E	P
yellow nutsedge	P	P	F-G	F-G	F	F	F	F-G	G	P	P	F	P	P	P	F	G-E	P-F
<b>Grasses</b>																		
signalgrass	G-E	G-E	F	F	P	F	P	G	P	P	P	P	P	E	E	P	G	P
crabgrass	E	E	G-E	E	E	E	P	F-G	P	P	P	P	P	G-E	E	P-F	G	P
crowfootgrass	E	E	E	E	E	E	P	G	P	P	P	P	P	F-G	G-E	P-F	G	P
fall panicum	G	G	F-G	G	G	G	P	G	P	P	F	P	P	G	G	P	G	P
goosegrass	E	E	G-E	E	E	E	P	F-G	P	P	P	P	P	F-G	G	P	F	P
seedling johnsongrass	E	E	G-E	F	F	F	P	G	P	P	P	P	P	G-E	G-E	F	F-G	P
sandbur	E	E	G	F-G	F-G	F-G	P	F	P	P	P	P	P	G	G-E		G	P
Texas panicum	G-E	G-E	P	P	P	P	P	G	P	P	P	P	P	G-E	G-E	P-F	F-G	P
<b>Broadleaves</b>																		
bristly starbur	P	P	P	P	F	P	E	F-G	G-E	P-F	F	F-G	F-G	P	P	P-F	F-G	F-G
citronmelon	P	P	P	P	P	P		F	P	G	F	F	G	P	P	P	G	P
cocklebur	P	P	P	P	P	P	E	G	E	E	G	E	E	P	P	E	E	F
coffee senna	P	P	F	P	P	P		E	F-G	F-G	P	F	G	P	P	F	G	P
cowpea	P	P	P	P	P	P		F	P	F	G	F	F-G	P	P	P	P-F	F
crotalaria	P	P	P	P	P	P			P		E	G-E		P	P			
croton, tropic	P	P	P	P	P-F	P	F-G	P	P	P	E	G-E	F	P	P	P	P-F	P
eclipta	P	P	F	P-F	P-F	P-F	E	P	P	P	F-G	F-G	F-G	P	P	P	P-F	P
Florida beggarweed	P	P	P	P-F	F	P-F	G-E	G-E	P	P	P	P	G	P	P	P	F-G	F-G
Florida pusley	E	E	E	G-E	G-E	G-E	E	P	P	P	P	P		P	P	P	F	P
jimsonweed	P	P	P					E	E	P	E	G	G	P	P	F-G		
lambquarter	E	E	E	F	F	G	E	F	F	F	F	F	E	P	P	P	G	P
morningglory	P	P	P	P	P	P	E	F-G	F	F-G	G	G	G	P	P	G	G	P
cypressvine mg.	P	P		P	P	P		G-E	G	F	G	G	G	P	P	G	G	
smallflower mg.	P	P	P	P	P	P		G-E	E	F	G-E	G-E	G	P	P	E	E	
pigweeds	G-E	G-E	G	G	G-E	G-E	G-E	G	P	P	E	F	G	P	P	E	E	P-F
prickly sida	P	P	G	F	F	F	E	G	G	F	P	P	F-G	P	P	P-F	G	P
ragweed	P	P	P	P	P	F	E	F	F	F	E	G	P-F	P	P	P	F	P-F
sicklepod	P	P	F	P	F	P	F	G	P	F-G	P	P	G-E	P	P	P	G	P-F
smartweed	P	P	G					G	G-E	P	G-E	G-E		P	P	G-E		P
wild radish	P	P	P	P	P	P		F	P	P	E	G		P	P	G-E	E	P

P = poor, F = fair, G = good, E = excellent (no letter means response unknown). PPI = preplant incorporated, PRE = preemergence.

Modified from: Gooden and Murdock(Clemson Univ.); and Prostko, Baldwin, and Beasley (Univ. of Georgia).

\*Cadre has a 90 day preharvest interval, therefore application could be made 20 DAP with a 110 day maturity.

### **Fungicide Program for White mold, Limbrot, and Leafspot:**

The fungicide program used for green peanuts is significantly different than what is recommended for dry peanut production because a green peanut production period is much shorter (about 100 days vs. 140 days) and the crop value is higher. The key to producing a bright-hulled cosmetically pleasing product is to prevent white mold and *Rhizoctonia limbrot* from getting started. Alternating different fungicide chemistries reduces the potential for developing resistant strains of soil and foliar diseases. Alternating fungicides also gives some insurance against the failure of one product alone. For example, Abound is a better preventative, but Folicur is a better curative product against white mold. Abound is a better limbrot material but Folicur is better against leafspot. It makes sense to use them both. The following schedule is only a guideline. It needs to be modified to account for opportunities to wash Folicur and Abound into the soil if no irrigation is available. The preharvest interval is 14 days for both Abound and Folicur.

1st spray	45 DAP - Abound 18 oz	Folicur 7.2 oz
2nd spray	60 DAP - Folicur 7.2 oz	<b>OR:</b> Abound 18 oz
3rd spray	75 DAP - Abound 18 oz	Folicur 7.2 oz

**Note: DO NOT** use any adjuvants, stickers, or crop oil with Folicur or Abound. The goal is to wash fungicide into soil. Spray Folicur and Abound **before** irrigation or rain when possible. Wait 24 to 48 hours to irrigate in order to also get leafspot control from Abound or Folicur application.

**CBR** - *Cylindrocladium black rot* is caused by a soil fungus which occurs in the same fields from year to year, often in low spots. Rotation and fumigation (Vapam 10 gal/ac) can be used to control CBR. There is also increasing evidence that Folicur and Abound provide some suppression of CBR. Among the Va. types; NC 12C and Perry have some resistance to CBR.

### **Insect Control:**

**Thrips** - use in-furrow Thimet 20G 5 lb/ac or Temik 15G 4 - 6 lb/ac.

**Soil Insects** - Apply Lorsban (13 lb/ac) at early pegging (about 45 DAP) to reduce pod damage by lesser cornstalk borer and wireworm. In addition to reducing pod damage, Lorsban helps brighten hull color by improving white mold control. Unfortunately Lorsban also causes outbreaks of corn earworm, granulate cutworm and spider mites later in the season. However, irrigation and the shorter growing season used in green peanut production lessens the possibility that these pests will require control.

**Foliage caterpillars** - Look for worms particularly during the last week of July and first week of August. Granulate cutworm is also a problem late in August where Lorsban is used. The treatment threshold is 4 worms per row ft. Rank-growing peanuts can tolerate 8 foliage feeding worms per row ft. Keep corn earworm off of stressed peanuts especially. Asana, Karate, Danitol, and Lannate are labeled on peanut.

**Spider mites** - Irrigation is the best spider mite defense. Comite and Danitol are labeled for mite control. Mites are less of a problem if Lorsban is not used.

**Harvest maturity:** Green peanuts typically mature in 90 to 110 days, depending on planting date.

Valencia types require a shorter season than Virginia types. Pods which aren't filled by the kernel are too young and pods with dark internal hull color are too mature. Dig when most pods are within this range.

**Summary:** The key to high quality, 120 bu/ac green peanuts is timely management decisions (and water of course). Poorly timed crop investments are often wasted ones.

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