



Peanut Production Season Plan

Use this checklist as a reminder and place a tick in the as you complete each of the operations

Pre-Season

1. Get a soil test and check with an agronomist prior to ordering your fertilizer.
2. Determine if lime or gypsum is needed.
3. Determine likely chemicals (herbicides, fungicides etc) needed for the season and order in advance.
4. Determine your desired planting date (is it an El Niño or La Niña year?)
5. Determine your deadline for planting. If this deadline is reached and it has not rained, pre-water your paddock.
6. Have an irrigation schedule worked out.
7. Ensure all equipment for the season is in good order (planters, boomspray, harvesters, etc.)
8. Calibrate planter and fertilizer rig (ensure at least 125,000 seeds per hectare for Virginias and 150,000 seeds per hectare for Runners).
9. Calibrate boom spray. Check nozzles.
10. Determine which variety best suits your conditions and make sure you have enough seed ordered.

Ground Preparation

1. Deep rip your paddock, preferably both ways.
2. Prepare an even seed bed - not too cloddy.
3. If the pH is acid, apply lime at least 2 weeks prior to planting and lightly incorporate.
4. Apply magnesium at least 2 weeks prior to planting.

Week 0: Planting

1. Ensure good moisture for planting (peanuts need to absorb at least 50% of their weight in water to germinate).
2. Use inoculant (keep cool in an esky.)
3. Sprinkle inoculant (dry) into the planter box. Half fill box with seed (gently), sprinkle some more inoculant over the seed. Fill the box up with seed. Sprinkle some more inoculant over the seed.
4. Get off the planter at regular intervals and check seed placement and depth.
5. Apply Dual® Gold at 1 to 2 L/ha as a pre-emergent, within 1 to 2 days of planting.
6. Dual® Gold must be watered in within 10 days of application with either irrigation or rainfall.
7. An irrigation within 5 days of planting will incorporate the Dual® Gold and may help ensure good crop emergence.
8. Keep track of your irrigation scheduling.

Week 1: Cracking

1. Cracking is when the peanuts are just about to emerge - they are starting to push through the soil and you can start to see the rows.
2. If the soil is dry or there is a hard crust, irrigation at this time can be beneficial to ensure good emergence.
3. If weeds have emerged prior to the peanuts, spray Paraquat Gramoxone® @ 400ml - 1L/ha at cracking.

Weeks 2 & 3: Crop Establishment

1. Crop should be fully emerged.
2. Check for soil insects and foliar insects, especially heliothis. Check for cutworms (*Agrotis sp.*)
3. No irrigation at this stage. It may be beneficial to stress the crop.

Weeks 4 & 5: Flowering

1. Start of flowering.
2. Spray any weeds with post-emergent herbicides.
3. No irrigation as the very first few flowers appear - stress the crop.
4. Apply protective fungicide application.
5. Apply foliar fertilizers (1% solution), especially copper (on very sandy soils) and zinc.
6. Apply gypsum @ 1- 2t/ha.
7. Check for foliar insects, especially jassids, leafhoppers, mites and heliothis.

Weeks 6 & 7: Main Flowering

1. This is the start of the main flowering and also the start of the logarithmic (fastest) growth phase when the peanuts start to grow very rapidly.
2. Irrigation is essential at this stage.
3. This is when the crop's yield potential is going to be set, so good conditions are essential.
4. Use your irrigation to try to fill the soil profile at this stage. This may involve two waterings in quick succession.
5. Check for foliar insects and foliar disease.
6. Spray appropriate fungicide as needed.
7. If cultivation is needed (eg. hard-setting soil, weeds etc), it is best performed no later than at this stage.

Weeks 8 & 9: Pegging

1. Make sure you are following your irrigation schedule (crop stress during pegging and pod setting can be detrimental to yield).
2. Pull a couple of bushes up (using a garden fork) and check the pegging and development.
3. Scout for foliar insects and diseases.
4. Spray appropriate fungicide as needed.
5. Spray with foliar fertilizers.
6. If Sclerotinia may be a problem, spray a protectant fungicide at this time.

Weeks 10 & 11: Pegging and Pod-Setting

1. Check irrigation schedule.
2. Pull some bushes up and check the development.
3. Check for diseases and insects.
4. Make sure harvesting equipment is properly repaired and maintained.

Weeks 12 & 13: Canopy Closure and Pod-Setting

1. The crop should reach full canopy closure by week 12.
2. The crop should now be setting its peak yield potential.
3. The crop factor in your irrigation schedule should now increase to 1.0 (this means the crop will lose as much water as an open pan of water placed in the sun and wind).
4. Check for diseases and insects and spray as necessary.
5. Spray with foliar fertilizers as required.

Weeks 14 & 15: Podfilling

1. Keep the water up to the crop. Check your irrigation schedule.
2. Pull some bushes up and check the pod development.
3. Check for insects especially armyworms (*Spodoptera*) which stay at or just below ground level during the day, but feed on pegs during the night.
4. Check for disease, especially rust. Look carefully for raised coppery pustules on the back of leaves.

Weeks 16 & 17: Pod Filling and Early Maturity

1. Keep the water up to the crop.
2. Check for disease.
3. By the end of Week 17, check for signs of maturity. Pull some bushes up and check for maturity.
4. Remember early maturing varieties may be fully mature by this time in some environments.

Weeks 18 & 19: Start of Maturity

1. Actual water use of the crop may start to lessen during this phase, but dig around under some plants and check the moisture status.
2. You still need to keep the crop moist to avoid aflatoxin and to help fill out any later setting pods.
3. Check for maturity.
4. Check for any signs of disease.

Weeks 20 & 21: Maturity and Digging

1. Check maturity using the Hull Scrape Test and double check any pods you are unsure of by using the shell-out technique.
2. Test maturity in the paddock by running some strips with the digger. Check for losses and maturity.
3. Make sure the digger is working properly. The elevator chain speed should be slightly faster than the forward speed of the digger.
4. Get off the tractor regularly and check under the windrow for losses. Try to get good inversion.
5. Keep in mind it may be best to dig initially what you can comfortably harvest with the thresher if you are dealing with large areas.

Harvest

1. To avoid aflatoxin contamination, peanuts should remain in the windrow for no more than three days.
2. The ideal moisture content for threshing to avoid losses and damage to the kernels is approximately 18 %.
3. Take samples from the windrow and check the moisture content.
4. The speed of the pick-up head should match the forward speed. This allows the windrow to be picked up without separating or over-running the inverted bushes.
5. Check cylinder speeds regularly - this may have to be adjusted as windrow conditions change during the day.

Pre-Cleaning

1. Pre-clean your peanuts to remove dirt, sticks, weeds and other extraneous matter. Pre-cleaning will also remove many LSKs and immature pods and so decrease the risk of aflatoxin contamination.

Curing

1. Ensure peanuts are adequately pre-cleaned.
2. Start drying within 3 hours of threshing to prevent aflatoxin development.
3. Make sure air temperature in the plenum does not exceed 11°C above ambient temperatures (up to a maximum of 35°C).
4. Check the moisture removal rate does not exceed 0.5% per hour.
5. Check the relative humidity of the drying air should be between 50% to 65%.
6. Make regular checks of the temperature and relative humidity in the air tunnel.
7. Regularly check the moisture content of the peanuts.