Texas Agricultural Extension Service
The Texas A&M University System

Field Estimate Technique for Peanut Yield
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Producers may want a late-season estimate of their prospective peanuts yields. The following information was initially developed by Chip Lee for 36" rows, and is now modified for additional row spacings. TAEX personnel or growers who would like a computer spreadsheet formula for quick calculation may contact Calvin Trostle. I (Calvin) have not used this much, but it seems to serve as a satisfactory estimate, if all steps are followed correctly. As always, producers should examine plants in several areas of the field. The accompanying correction factors are for use with the pod number of a 1-foot section of row; thus averaging several 1-foot sections will improve estimated yields.

Assume :   1) Kernels per pound—Runner, 750; Virginia, 550; Spanish, 1050; Valencia, 1100*-- because valencias average more than 2 kernels per pod, see note below about estimating valencia yields.

2) Grade = 72 (a basic assumption for which no adjustment should be made in the following estimates);

3) Two kernels per pod (except valencias), e.g. 750 pods of runner peanut equal 2 lbs.

Row Spacing	Linear feet per acre (**LF**)	Correction Factor (**CF**) for Assumed Kernel Sizes			
		Peanut Market Type			
		Runner	Virginia	Spanish	Valencia
20"	26136	96.8	132.0	69.1	115.5
30"	17424	64.5	88.0	46.1	77.0
32"	16335	60.5	82.5	43.2	72.2
36"	14520	53.8	73.3	38.4	64.2
40"	13068	48.4	66.0	34.6	57.8

In its simplest form, assuming standard kernel size and 72 grade, a producer may calculate estimated yield of XYZ pods per 1 foot of row length on 40" rows. For example, at 90 pods per foot for runner peanuts:

(Pods per 1 foot of row) X **CF** = 90 pods/foot X 48.4 = 4356 lbs/A.

In counting pods, all singles or 1-kernel pods should not be counted (see note below for valencias). This calculation does not attempt to account for yield losses during harvest and handling. These figures are only meant to serve as an aid in estimating yields if the peanut is harvested immediately and there is no harvest loss.

For more complex calculations where kernel size is determined to be different than the assumed value, do not use the Correction Factor (**CF**) in the above table, but instead use the linear feet per acre (**LF** in the above table) to determine a modified correction factor (**CF$_{Mod}$**). Where two kernels per pod predominate:

(Standard Grade)X = 2 lbs. of peanuts, or (0.72)X = 2 lbs.; X = 2.0/0.72 = 2.78 lbs of pods.

This means that to get 2 lbs. of kernels, you must have 2.78 lbs. of pods. If, for example, there are 700 kernels per pound in a larger-seeded runner peanut on 40" rows with 90 pods per 1-foot section of row then:

$$\text{Weight of one pod } = \text{ 2.78 lbs./(number of pods per pound) } = \text{ 2.78 lbs./700 pods}$$
$$= \text{ 0.00397 lbs./pod}$$

$$\text{Modified Correction Factor (\textbf{CF}}_{\textbf{Mod}}) = \text{ (lbs./pod) X } \textbf{LF}$$
$$= \text{ (0.00397 lbs./pod) X 13068 } = \text{ 51.8}$$

Hence, for the same runner peanut example above,

$$\text{Yield } = \text{ (Pods per 1 foot of row) X } \textbf{CF}_{\textbf{Mod}} = \text{ 90 pods/foot X 51.8 } = \text{ 4671 lbs./A.}$$

Remember, an increase in grade will increase producer's yields, and a decrease in grade will lower producer's yields (however, to change the % grade in these estimate calculations has the opposite effect so use 72% for all field estimates).

***A special note for valencias**: The above examples are for pods with 2 kernels per pod. Valencia kernel number per pod is usually three and four, and we are estimating the average to be 3.5 (or you can estimate the average number of kernels per pod then adjust the following calculation). For example, a valencia crop averages 3.5 kernels per pod. So 1100 pods containing an average of 3.5 kernels would thus contain 3.5 lbs of kernels. Then 3.5 lbs./(0.72) = 4.86 lbs. of pods, and 4.86 lbs./1100 pods = 0.004418 lbs. per pod. On 30" rows with 50 pods per 1-foot section of row, then

Correction Factor (**CF** from table) = (lbs./pod) X **LF** = (0.004418 lbs./pod) X 17424 = 77.0

$$\text{Yield } = \text{ (Pods per 1 foot of row) X } \textbf{CF} = \text{ 50 X 77.0 } = \text{ 3850 lbs./A}$$