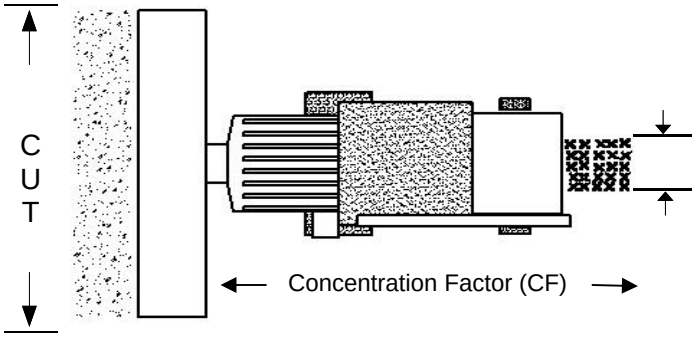
Combine Seed Loss Guide

A method for determining seed loss from your combine based on weight, volume, or kernels.



DISCHARGE
(no choppers or spreaders)

Windrower or header

STEP 1
Find your CF—in this table

Common Ratios of Width of Cut to Width of Discharge (Concentration Factor)

Width of Cut (ft)	Width of Discharge from Rear of Combine (ft) 3	4	5	6	CF (X)
	12	16	20	24	4
	15	20	25	30	5
	18	24	30	36	6
	21	28	35	42	7
	24	32	40	48	8
	27	36	45	54	9
	30	40	50	60	10

STEP 2
Collect a Sample from discharge of known area

Be Careful
Be Safe

Continue steps on next page

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STEP 3 Clean seed from catch
- Sieve using a screen
- Blow out chaff

Hint can use leaf blower and 85 L tub

STEP 4 Weigh, measure (volume), or count seeds (use scale, test tube), see guide.

STEP 5 Calculate loss on per ft^2 basis
(divide results by ft^2 of collection pan)

STEP 6 Select **Table 2, 3, 4,** or **5** to find loss on a per acre basis

Table 2 **Weighing Method - All Crops**

Cut width compared to windrow droped behind combine (Concentration Factor = CF)								Loss
CF	4	5	6	7	8	9	10	lb/ac
Loss Collected Behind Combine in 1 square foot Grams/ft^2	0.4	0.5	0.6	0.7	0.8	0.9	1.0	**10**
	0.6	0.8	0.9	1.1	1.2	1.4	1.6	**15**
	1.0	1.3	1.6	1.8	2.1	2.3	2.6	**25**
	2.1	2.6	3.1	3.6	4.2	4.7	5.2	**50**
	3.1	3.9	4.7	5.5	6.2	7.0	7.8	**75**
	4.2	5.2	6.2	7.3	8.3	9.4	10.4	**100**
	5.2	6.5	7.8	9.1	10.4	11.7	13.0	**125**
	6.2	7.8	9.4	10.9	12.5	14.1	15.6	**150**
	7.3	9.1	10.9	12.8	14.6	16.4	18.2	**175**
	8.3	10.4	12.5	14.6	16.7	18.7	20.8	**200**

For bigger collection pans multiply the values in the grey zone by the number of ft^2 in the collection
Calculations are based upon 0.010413 grams/ft^2 over each ft^2 in an acre =1 lb/ac

Table 3 **Volume Measurement Method - All Crops**

Cut width compared to windrow droped behind combine (Concentration Factor = CF)								Loss
CF	4	5	6	7	8	9	10	bu/ac
Loss Collected Behind Combine in 1 ft^2 in Millilitres (ml)	0.8	1.0	1.3	1.5	1.7	1.9	2.1	**0.25**
	1.7	2.1	2.5	2.9	3.3	3.8	4.2	**0.50**
	2.5	3.1	3.8	4.4	5.0	5.6	6.3	**0.75**
	3.3	4.2	5.0	5.8	6.7	7.5	8.3	**1.00**
	4.2	5.2	6.3	7.3	8.3	9.4	10.4	**1.25**
	5.0	6.3	7.5	8.8	10.0	11.3	12.5	**1.50**
	5.8	7.3	8.8	10.2	11.7	13.1	14.6	**1.75**
	6.7	8.3	10.0	11.7	13.4	15.0	16.7	**2.00**
	8.3	10.4	12.5	14.6	16.7	18.8	20.9	**2.50**
	10.0	12.5	15.0	17.5	20.0	22.5	25.0	**3.00**
	11.7	14.6	17.5	20.5	23.4	26.3	29.2	**3.50**
	13.4	16.7	20.0	23.4	26.7	30.1	33.4	**4.00**
	15.0	18.8	22.5	26.3	30.1	33.8	37.6	**4.50**
	16.7	20.9	25.0	29.2	33.4	37.6	41.7	**5.00**

For bigger collection pans multiply the values in the grey zone by the number of ft^2 in the collection
Calculations are based upon 0.8348875 ml/ft^2 over each ft^2 in an acre =1 bu/ac

Table 4 Kernels Method - Wheat

Cut width compared to windrow droped behind combine (Concentration Factor = CF)								Loss
CF	4	5	6	7	8	9	10	bu/ac
Loss Collected Behind Combine in 1 ft² in # of Kernels (ft²)	20	25	30	35	40	45	50	**0.25**
	40	50	60	70	80	90	100	**0.50**
	60	75	90	105	120	135	150	**0.75**
	80	100	120	140	160	180	200	**1.00**
	100	125	150	175	200	225	250	**1.25**
	120	150	180	210	240	270	300	**1.50**
	140	175	210	245	280	315	350	**1.75**
	160	200	240	280	320	360	400	**2.00**
	200	250	300	350	400	450	500	**2.50**
	240	300	360	420	480	540	600	**3.00**
	280	350	420	490	560	630	700	**3.50**
	320	400	480	560	640	720	800	**4.00**
	360	450	540	630	720	810	900	**4.50**
	400	500	600	700	800	900	1000	**5.00**

For bigger collection pans multiply the values in the grey zone by the number of ft² in the collection

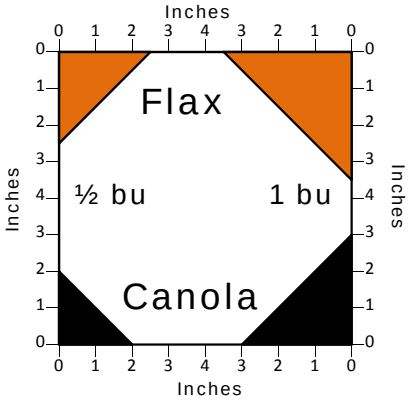
Calculations are based upon 20 kernel/ft² over each ft² in an acre =1 bu/ac

Table 5 Kernels Method - Barley

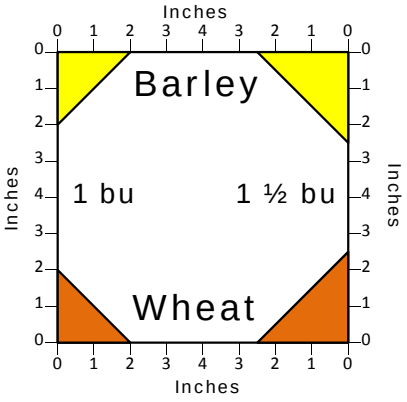
Cut width compared to windrow droped behind combine (Concentration Factor = CF)								Loss
CF	4	5	6	7	8	9	10	bu/ac
Loss Collected Behind Combine in 1 ft² in # of Kernels (ft²)	14	18	21	25	28	32	35	**0.25**
	28	35	42	49	56	63	70	**0.50**
	42	53	63	74	84	95	105	**0.75**
	56	70	84	98	112	126	140	**1.00**
	70	88	105	123	140	158	175	**1.25**
	84	105	126	147	168	189	210	**1.50**
	98	123	147	172	196	221	245	**1.75**
	112	140	168	196	224	252	280	**2.00**
	140	175	210	245	280	315	350	**2.50**
	168	210	252	294	336	378	420	**3.00**
	196	245	294	343	392	441	490	**3.50**
	224	280	336	392	448	504	560	**4.00**
	252	315	378	441	504	567	630	**4.50**
	280	350	420	490	560	630	700	**5.00**

For bigger collection pans multiply the values in the grey zone by the number of ft² in the collection

Calculations are based upon 14 kernel/ft² over each ft² in an acre =1 bu/ac



Loss in corner of pan for CF 5-6



Function	Look - Where - What	**Adjustment** (make only one at a time)
Start Up	Manual, Monitor, Pre-set for crop	faster threshing speed, tighter clearance, wider suggeste sieve openings, slow down
Threshing - Under	straw- seed left in head	increase threshing speed, decrease concave clearance, add concave blanks, slow down
	cleaner - unthreshed heads	increase threshing speed, decrease concave clearance, add concave blanks, slow down
	return - unthreshed heads	increase threshing speed, decrease concave clearance, add concave blanks, slow down
	graintank - part heads, no small kernels, no cracks	increase threshing speed, decrease concave clearance, add concave blanks, slow down
Threshing - Over	straw - no unthreshed, straw broken and chaff like	drive faster, decrease threshing speed, increase concave clearance
	cleaner - no unthreshed, high chaff load, cracked grain	drive faster, decrease threshing speed, increase concave clearance
	return - no unthreshed, craked grain	drive faster, decrease threshing speed, increase concave clearance
	grain tank - cracked grain	decrease threshing speed, increase concave clearance
Separating	straw- free grain	increase threshing speed, decrease concave clearance, use wider spaced wire concaves, reduce vane angle, slow down
	straw - excessive chaff	decrase threshing speed, increase concave clearance, use narrow wire space concaves, increase vane angle
Cleaning	Start Up	Feed combine slowly - increase fan speed until start blowing a few seeds over chaffer sieve
	chaff - seeds(threshed)	increase chaffer sieve opening, even out chaff/grain loading, decrease threshing, slow down
	grain - light trash	increase fan speed, decrease chaffer opening, decrease cleaning sieve opening
	return - clean grain	open sieve, open chaffer, decrease fan speed

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