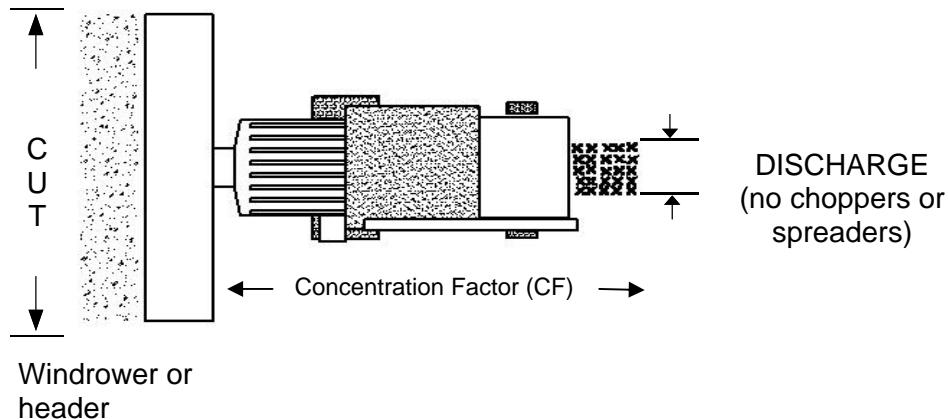


Combine Seed Loss Guide

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



STEP 1
Find your CF—in this table

Common Ratios of Width of Cut to Width of Discharge (Concentration Factor)					
	Width of Discharge from Rear of Combine (ft)				CF (X)
	3	4	5	6	
Width of Cut (ft)	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

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 ft² basis (divide results by ft² 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 dropped 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 ft² in the collection

Calculations are based upon 0.010413 grams/ft² over each ft² in an acre =1 lb/ac

Table 3 Volume Measurement Method - All Crops

Cut width compared to windrow dropped 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 ft² in the collection

Calculations are based upon 0.8348875 ml/ft² over each ft² in an acre =1 bu/ac

Table 4

Kernels Method - Wheat

Cut width compared to windrow dropped behind combine (Concentration Factor = CF)

CF	4	5	6	7	8	9	10	Loss bu/ac
Loss Collected Behind Combine in 1 ft ² in # of Kernels (ft ²)	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

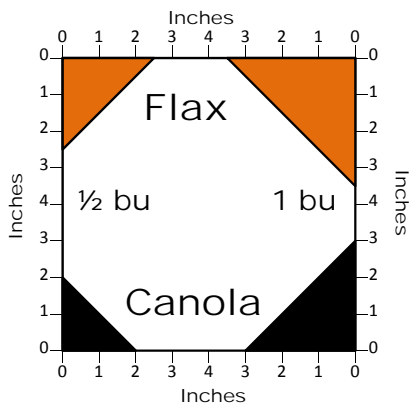
Kernels Method - Barley

Cut width compared to windrow dropped behind combine (Concentration Factor = CF)

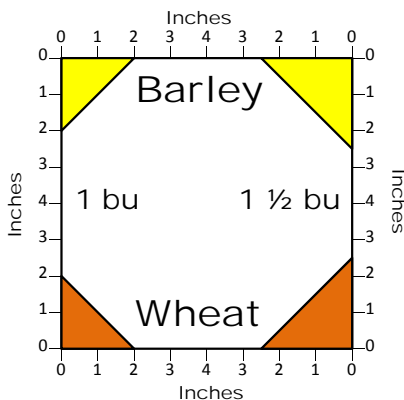
CF	4	5	6	7	8	9	10	Loss bu/ac
Loss Collected Behind Combine in 1 ft ² in # of Kernels (ft ²)	14	18	21	25	28	32	35	0.25
	28	35	42	49	56	63	70	0.50
	42	53	63	74	84	95	105	0.75
	56	70	84	98	112	126	140	1.00
	70	88	105	123	140	158	175	1.25
	84	105	126	147	168	189	210	1.50
	98	123	147	172	196	221	245	1.75
	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	decrease 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

Canola Council of Canada
400—167 Lombard Avenue
Winnipeg, MB R3B 0T6

Phone: (204) 982-2100 Toll Free: (866) 834-4378
Website: www.canolacouncil.org

Prairie Agricultural Machinery Institute
2215—8th Avenue
PO Box 3645
Humboldt, SK S0K 2A0

Phone: (306) 682-5033 Fax: (306) 682-5080
Website: www.pami.ca