

Table S1. Influence of source and sink manipulations on yield attributes in sunflower during kharif and rabi season. Tukey's HSD: $p \leq 0.05$

Treatment	Total dry matter (g plant ⁻¹)		Head diameter (cm)		Seed filling (%)	
	kharif	rabi	kharif	rabi	kharif	rabi
T1: Control (POP)	88.03 ^c	86.50 ^c	16.10 d	15.73 de	76.47 e	76.89 e
T2: TIBA + NAA	96.63 ^{ab}	94.97 ^{ab}	18.17 ab	17.20 bc	89.77 bc	89.30 bc
T3: Boron 0.2 %	96.41 ^{ab}	94.66 ab	17.20 bc	17.13 bc	92.87 ab	89.92 bc
T4: Basal defoliation 33 %	75.33 ^d	71.27 d	14.87 e	14.58 e	72.63 e	76.42 e
T5: Middle defoliation 33 %	73.83 ^d	70.50 d	14.08 e	13.98 e	70.56 e	69.57 f
T6: Nitrogen at star bud	98.41 ^a	95.28 ab	16.83 cd	16.90 cd	85.80 cd	85.46 cd
T7: Humic acid 8 %	103.90 ^a	97.33 a	16.90 cd	17.00 bc	85.59 cd	85.92 cd
T8: Double N + micronutrients	97.37 ^{ab}	98.84 a	18.15 ab	17.30 bc	92.93 ab	89.50 bc
T9: Benzyl adenine 150 ppm	96.94 ^{ab}	97.70 a	18.10 ab	19.30 a	93.07 ab	91.63 ab
T10: ycocel 3000 ppm	98.77 ^a	96.81 a	19.37 a	19.00 a	94.17 a	92.77 a

Table S2. Influence of source and sink manipulations on oil content and oil yield in sunflower during kharif and rabi seasons. Tukey's HSD: $p \leq 0.05$

Treatment	Test weight (g)		Yield plant ⁻¹ (g)		Seed yield (kg ha ⁻¹)		Harvest index (%)	
	kharif	rabi	kharif	rabi	kharif	rabi	kharif	rabi
T1: Control (POP)	4.53 d	4.33 d	34.73 e	34.17 e	1929 f	1898 f	39.45 d	39.82 d
T2: TIBA + NAA	5.97 bc	5.60 bc	47.20 b	46.17 b	2622 c	2565 c	48.84 b	48.44 b
T3: Boron 0.2 %	5.70 bc	5.57 bc	46.30 b	44.83 b	2572 c	2491 d	48.02 b	47.37 b
T4: Basal defoliation 33 %	4.17 d	4.12 d	29.63 f	29.50 f	1646 g	1639 g	39.33 d	38.63 d
T5: Middle defoliation 33 %	4.10 d	3.88 d	28.13 f	24.90 g	1563 g	1383 h	38.10 d	35.33 e
T6: Nitrogen at star bud	4.87 cd	5.03 cd	42.37 d	41.17 d	2354 d	2287 e	41.78 c	41.89 c
T7: Humic acid 8 %	5.20 c	5.20 c	42.30 d	40.17 d	2350 d	2232 e	40.71 c	40.44 c
T8: Double N + micronutrients	5.83 bc	5.20 c	46.83 b	46.93 b	2602 b	2607 b	48.09 b	47.53 b
T9: Benzyl adenine 150 ppm	6.08 a	5.97 ab	48.60 a	47.53 a	2700 a	2641 b	50.13 a	48.98 a
T10: Cycocel 3000 ppm	6.22 a	6.17 a	49.90 a	48.10 a	2772 a	2672 a	50.67 a	49.69 a

Table S3. Influence of source and sink manipulations on oil content and oil yield in sunflower during kharif and rabi seasons. Tukey's HSD: $p \leq 0.05$

Treatment	Oil content (%)		Oil yield (kg ha ⁻¹)	
	kharif	rabi	kharif	rabi
T1: Control (POP)	36.24 d	35.46 d	699 f	673 f
T2: TIBA + NAA	36.81 bc	37.00 bc	965 c	949 c
T3: Boron 0.2 %	36.93 bc	36.10 bc	950 c	899 d
T4: Basal defoliation 33 %	33.99 e	33.38 e	560 g	547 g
T5: Middle defoliation 33 %	33.55 e	31.57 f	524 g	437 h
T6: Nitrogen at star bud	36.79 bc	36.75 bc	866 d	841 e
T7: Humic acid 8 %	37.35 b	37.26 b	878 d	832 e
T8: Double N + micronutrients	37.81 ab	37.81 a	984 b	986 b
T9: Benzyl adenine 150 ppm	37.16 b	36.81 ab	1003 a	972 b
T10: Cycocel 3000 ppm	38.26 a	37.61 a	1061 a	1005 a