

Table 5 Number of branch per plant of swamp cabbage cultivars at different days after transplanting (DAT)

Cultivar	Number of branch per plant				
	14 DAT	21 DAT	28 DAT	35 DAT	42 DAT
V1	3.00 a	4.33NS	5.67 a	7.00 a	8.33 a
V2	2.00 b	3.33	4.33 b	4.67 b	5.33 b
V3	2.33 b	4.33	5.33 ab	6.33 a	7.33 a
LSD (0.05)	0.67	1.15	1.15	1.48	1.15
CV (%)	13.64	14.43	11.30	12.42	8.25

Note: V1 = BARI swamp cabbage-1; V2 = La procesa swamp cabbage-1; V3 = Nice green swamp cabbage; NS = Non-significant. Means in the same column with different letter(s) are significant at the 0.05 level of probability

3.5 Leaf area

With every DAT, remarkable variations in the leaf area were found in the case of swamp cabbage. V1 exceeded V2 (222.33 mm²) and V3 (263.95 mm²) by recording the largest leaf area (647.81 mm²) at 14 DAT (Table 6). The largest leaf area was regularly observed by V1 (Bari Swamp Cabbage-1) compared to V3 (beautiful green) and V2 (LP-1). This pattern was still available at 42 DAT, whereby V1 is still better (664.80 mm²), while V2 and V3 had noticeably reduced the leaf surfaces. The consistently larger leaf surface in V1 reflects its genetic advantage for efficient photosynthesis and contributes to higher growth and earnings potential.

Table 6 Leaf area of swamp cabbage cultivars at different days after transplanting (DAT)

Cultivar	Leaf area (mm ²)		
	14 DAT	28 DAT	42 DAT
V1	647.81 a	682.43 a	664.80 a
V2	222.33 b	329.74 b	283.93 b
V3	263.95 b	303.90 b	273.84 b
LSD (0.05)	54.00	92.65	39.63
CV (%)	6.94	10.86	4.87

Note: V1 = BARI swamp cabbage-1; V2 = La procesa swamp cabbage-1; V3 = Nice green swamp cabbage; NS = Non-significant. Means in the same column with different letter(s) are significant at the 0.05 level of probability

Leaf area is one of the most crucial variables affecting photosynthetic capability and output potential. The larger leaf area of V1 demonstrates its suitability for intensive cropping systems (Ahmed et al., 2022).

The leaf breadth of the various swamp cabbage cultivars varied noticeably at each DAT (Table 7). V1 (BARI swamp cabbage-1), V2 (LP-1), and V3 (Nice Green swamp cabbage) consistently produced the widest leaves. At 14 DAT (33.26 mm), V1's leaves were the broadest and notably larger than those of V2 (23.88 mm) and V3 (23.79 mm). This pattern continued at 42 DAT, with V1 still holding a dominant position (33.89 mm). Wider leaves in V1 suggest the possibility of improved photosynthetic efficiency and light interception, both of which are essential for plant development and yield.

Larger leaves on V1 may increase its ability to absorb sunlight, resulting in improved yield and growth (Khan et al., 2020).

Table 7 Leaf breadth of swamp cabbage cultivars at different days after transplanting (DAT)

Cultivar	Leaf breadth (mm)		
	14 DAT	28 DAT	42 DAT
V1	33.26 a	34.53 a	33.89 a
V2	23.88 b	25.68 b	24.78 b
V3	23.79 b	24.44 b	24.12 b
LSD (0.05)	3.06	5.23	2.22
CV (%)	5.59	9.42	4.03

Note: V1 = BARI swamp cabbage-1; V2 = La procesa swamp cabbage-1; V3 = Nice green swamp cabbage; NS = Non-significant. Means in the same column with different letter(s) are significant at the 0.05 level of probability