

Fernandez-Leon et al. (2012) assessed the antioxidant phytochemicals in the Savoy cabbage. The contents of the main phytochemical compounds measured in Savoy cabbages were 49.06 mg/100 g fresh weight of vitamin C, 0.37 mg/100 g fresh weight of β -carotene and 102.71 mg/100 g fresh weight of total phenolics.

The iodine content of the different cabbage hybrids was cited in Table 1.5. There were significant differences in the iodine content among the hybrids grown in the Middle Hill climatic conditions of Uttarakhand Himalayas. The concentration range and mean of seventeen samples were 1.60 to 7.41 and 4.55, respectively. Antioxidant activity was also estimated and found 1.23 $\mu\text{g}/100\text{ g}$ and 5.59 $\mu\text{g}/100\text{ g}$ (mean values) respectively, on the basis of the iodine concentration hybrid Varun, which recorded 7.41 (IC_{50}), followed by Green Flash (6.40 IC_{50}). Cabbage hybrid 3 exhibited antioxidant activity of 1.20 IC_{50} value, followed by Cabbage Hy 4 (1.45 IC_{50}) (Figure 1.3).

By estimating the iodine concentration in soil and water, it will be helpful for us to judge whether this area is sufficient in iodine or not. Iodine concentration in water and soil reflects the environmental iodine distribution and is also an important index of the natural iodine intake of the surrounding human population. Iodine content in water and soil is directly associated with the content of iodine in food and affects both the mortality rate and quality of life of human populations. The iodine

TABLE 1.5
Iodine Concentration in Cabbage Hybrids

Cabbage Hybrids	Iodine ($\mu\text{g}/100\text{ g}$)	Antioxidant Activity (IC_{50}) Value
Cabbage hy 1	5.34	5.40
Cabbage hy 2	2.73	1.74
Cabbage hy 3	4.29	1.20
Cabbage hy 4	1.75	1.45
Cabbage hy 5	4.51	2.70
Cabbage hy 6	4.95	2.60
Quisto	4.78	2.31
Kranti	3.33	2.30
DARL 802	4.00	1.73
DARL 801	5.80	2.50
CH 21	5.94	2.37
Green Flash	6.40	2.94
SIR	6.20	2.37
CH 2200	6.41	2.08
Speed 50	2.91	2.93
Krishna	1.60	2.02
Varun	7.41	2.10
CD @ 1%	1.62	0.21*
CD @ 5%	1.21	0.84
SD	0.18	0.036

*Significant at $P = 0.01$.