Table 1: Diagnosis and recommendation integrated system norms (DRIS Norms) for soil nutrient status for pepper (*Piper nigrum* L.)

		Soil fertility status			
Nutrients	**Unit**	**Deficient**	**Low**	**Optimum**	**High**
pH	-	< 4.00	4.0-4.71	4.75-6.15	6.16-6.88
Org. Carbon	%	< 0.10	0.10-2.00	2.00-7.50	7.50-8.00
Bray Phosphorus	ppm	< 0.60	0.60-12.0	12.0-96.0	97.0-150.0
Exch. Potassium	ppm	< 35.0	36.0-90.0	91.0-289.0	290.0-930.0
Exch. Calcium	ppm	< 15.0	15.0-60.0	61-139.0	139.1-205.5
Exch.Magnesium	ppm	< 8.0	8-40	40-194	195-300
DTPA Iron	ppm	< 3.0	3.0-11.0	12.0-65.0	66.0-98.0
DTPAManganese	ppm	< 2.5	2.5-5.0	5.0-35.0	36.0-55.0
DTPA Zinc	ppm	< 0.45	0.50-2.0	2.10-7.0	8.0-52.0
DTPA Copper	ppm	< 0.11	0.12-0.50	0.51-7.7	7.8-14.20

Source: Srinivasan *et al*. (2007)

Table 2: Diagnosis and recommendation integrated system norms (DRIS Norms) for leaf nutrient concentration in pepper (*Piper nigrum* L.)

		Leaf nutrient concentration status				
Nutrients	**Unit**	**Deficient**	**Low**	**Optimum**	**High**	**Excess**
Nitrogen	%	< 1.06	1.06-1.64	1.65-2.79	2.80-3.40	> 3.40
Phosphorus	%	< 0.03	0.03-0.10	0.11-0.26	0.27-0.37	> 0.37
Potassium	%	< 0.33	0.33-1.77	1.78-2.84	2.85-3.68	> 3.68
Calcium	%	< 0.47	0.47-1.41	1.42-3.33	3.34-4.30	> 4.30
Magnesium	%	< 0.20	0.20-0.39	0.40-0.69	0.70-1.06	> 1.06
Sulphur	%	< 0.01	0.01-0.08	0.09-0.29	0.30-0.38	> 0.38
Iron	ppm	< 60	60-125	126-114.5	114.6-179.6	> 179.6
Manganese	ppm	< 30	30-108	109-721	722-1027	> 1027
Zinc	ppm	< 10	10-20	21-67	68-100	> 100
Boron	ppm	< 6	6-15	16-120	120-200	> 200

Source: Srinivasan *et al*. (2007)