

Dalorima T, Sakimin S Z, Shah R M. Utilization of organic fertilisers a potential approaches for agronomic crops: A review. *Plant Science Today*. 2021;8(1):190-198. <https://doi.org/10.14719/pst.2021.8.1.1045>

Supplementary Tables

Table 1. Chemical properties of poultry manure

Parameters	Value
Organic Matter(%)	84.79
Total Nitrogen(%)	4.29
Moisture(%)	18.29
Total Phosphorus(%)	1.34
Total Potassium(%)	0.93
Total Calcium(ppm)	1946.30
Total Magnesium(ppm)	342.30
Total Iron(ppm)	104.22
Total Copper(ppm)	39.55
Total Zinc(ppm)	393.90
Total Manganese(ppm)	396.10
Electric Conductivity mS cm ⁻¹	8.19
pH	18.29

Source: (11)

Table 2. Effects of poultry manure application rates on crops

Rates (t/Ha)	Parameters Enhanced	Crops	References
30	Yield	Maize	(19)
20	Yield	Corn	(20)
25	Fruit yield	Watermelon	(21)
30	Yield	Maize	(22)
30	Tuber yield	Yam	(23)
15	Fruit size	Tomato	(24)
20	Pods number	Cowpea	(12)
6.25	Residual effect	Amaranthus	(25)
10	Yield attributes	Maize	(20)
10	Fruit quality	Okra	(26)
4	Processing Suitability Index	Potato	(27)
10	Number of fruits	Tomato	(24)
35	Bulb size	Onion	(28)
20	Mustard	Seeds yield	(29)
26	Tomatoes	Growth	(30)
15	Sesame	Growth	(31)
24	Pumpkin	Vegetative growth	(10)
15	Lettuce	Growth	(32)

Table 3. Chemical properties of cow dung

Parameter	Value
Moisture(Kg/Kg)	45
pH(Water)	6.8
Total Carbon(g/Kg)	249.3
Total Nitrogen(g/Kg)	22.8
Total Phosphorus(g/Kg)	2.9
Avail. Nitrogen(g/Kg)	2.9
Avail. Phosphorus(g/Kg)	5.2
Avail. Potassium(g/Kg)	21.5
Avail. Sulphur(g/Kg)	4.9
Avail. Calcium(cmol/Kg)	1.4
Avail. Magnesium(cmol/Kg)	5.8
Electrical Conductivity(dS/m)	29.2

Source: (39)

Table 4. Effects of cowdung application rates on crops

Rates (t/Ha)	Crops	Parameters Enhanced	References
5	Tomato	Fruit yield	(46)
10	Mung bean	Yield/Quality	(47)
5.6	Maize	Seed yield	(48)
3	Sweet Potato	Growth, yield and quality	(49)
18.5	Watermelon	Growth and yield	(50)
100	French Bean	Total yield	(51)
15	Maize	Yield	(52)
25	Cabbage	Bulb weight	(36)
42	Cowpea	Economic yield	(53)
5	Egg plant	Fruit yield	(5)

Table 5. Chemical properties of vermicompost

Parameter	Value
Nitrogen(%)	3.3
Phosphorus(%)	0.41
Potassium(%)	2.3
Magnesium(%)	1.8
Calcium(%)	7.2
Iron(ppm)	325.5
Zinc(ppm)	231.7
Manganese(ppm)	396.5

Boron(ppm)	7.3
Copper(ppm)	61.8
Source: (63)	

Table 6. Effects of vermicompost application rates on crops

Rates (t/ha)	Crops	Parameters Enhanced	References
7.5	Cowpea	Grain yield	(70)
5	Raya seed	Quality	(71)
10	Tomato	Yield attributes	(72)
10	Bringal	Germination	(73)
9	Maize	Yield	(74)
10kg/plant	Nagnur Orange	Quality and quantity	(75)
12	Okra	Yield	(76)
10	Strawberry	Fruits production	(77)
5	Sugarcane	Yield	(78)
20	Tomato/pepper	Yield	(55)
10	Cucumber	Growth	(79)
20	Tomato	Growth/yield	(80)
5	Eggplant	Growth	(59)

Table 7. Chemical properties of goat manures

Parameters	Values
Organic Matter (%)	69.2
pH	6.5
Total Nitrogen (%)	4.9
Phosphorus (%)	4.1
Total Potassium (%)	1.9
Total Calcium (%)	1.0
Total Magnesium (%)	0.9
Sulphur (ppm)	2050
Iron (ppm)	7214
Manganese (ppm)	512
Zinc (ppm)	924

%; Percentage, ppm: Parts Per Million

Source: (81, 82)

Table 8. Effects of goat manure application rates on crops

Rates (t/ha)	Crops	Parameters Enhanced	References
10	Spinach	Number of leaves	91
10	Pepper	Nutrients	92
5	Celosia	Growth	92
10	Pepper	Growth and nutrients	85
40	Okra	Pod weight	93
25	Tomato	Growth and nutrient status	92
10	Maize	Yield and biomass	90
20	Sweet maize	Growth and yield	94
800ml/plant	Sunflower	Protein content	95
20kg/plant	Coconut	Nut and bunch yield	87

Table 9. Mineral composition of seaweed

Mineral compounds (g/kg DW)	Brown seaweed
Carbon	400
Nitrogen	12
Sulphur	26
Phosphorus	0.67
Sodium	39
Potassium	26
Cobalt	3.47
Magnesium	8.7
Calcium	12.4
Aluminum	21
Silicon	<0.1

Source: (102)