CLAIMS

1. A process of preparing a solid soil conditioner comprising:
mixing liquid-containing waste with a plaster to form a mixture; and
adding a pH modifying agent to adjust the pH of the mixture to a pH level of 4.5-10, thereby solidifying the mixture to form a solid soil conditioner.

2. The process according to claim 1, wherein the process further comprises mixing liquid-containing waste with a calcium precursor compound to form a precursor mixture and adding a precipitating agent to the precursor mixture to form the plaster and liquid-containing waste mixture.

3. The process according to claim 2, wherein the precursor mixture further comprises plaster.

4. The process according to claim 2 or 3, wherein the calcium precursor is calcium oxide, calcium hydroxide, calcium carbonate, a combination thereof or a mineral comprising one or more of calcium oxide, calcium hydroxide and calcium carbonate.

5. The process according to any one of claims 2 to 4, wherein the precipitating agent comprises one or more of the group selected from: sulphuric acid, sulphate salt, bisulphate salt, sulphurous acid, sulphite salt, bisulphite salt, sulfamic acid, phosphoric acid, phosphate salt, citric acid, citrate salt, oxalic acid, oxalate salt.

6. The process according to claim 5, wherein the precipitating agent comprises one or more of the group selected from: sulphuric acid, sulphate salt, bisulphate salt, sulfamic acid, citric acid and citrate salt.

7. The process according to any preceding claim, wherein the liquid-containing waste is selected from the group consisting of: compost, wastewater, wastewater sludge, manure, palm oil mill effluent, palm oil mill effluent sludge and a combination thereof.

8. The process according to any preceding claim, wherein the pH modifying agent is selected from the group consisting of: sulphuric acid, bisulphate salt, sulphurous acid, sulfamic acid, bisulphite salt, phosphoric acid, acidic phosphate salt, citric acid, acidic citrate salt, oxalic acid, acidic oxalate salt, and a combination thereof.

9. The process according to any preceding claim, wherein the process further comprises adding an absorbent.

10. The process according to claim 9, wherein the absorbent is selected from the group consisting of: polyallylamine, polyacrylamide, copolymer of acrylate, acrylamide, polysaccharide, derivatives thereof, and a combination thereof.

11. The process according to any preceding claim, wherein the process further comprises adding a buffering agent.

12. The process according to claim 11, wherein the buffering compound is selected from the group consisting of: salts of citric acid, salts of phosphoric acid, and a combination thereof.

13. The process according to any preceding claim, wherein the process further comprises adding a nutrient-containing compound.

14. The process according to claim 13, wherein the nutrient-containing compound is selected from the group consisting of: muriate of potash (MOP), potassium bicarbonate, potassium carbonate, potassium sulphate, potassium silicate, potassium nitrate, potassium hydrogen sulphate, monopotassium phosphate, dipotassium phosphate, tripotassium phosphate, ammonium chloride, ammonium bicarbonate, ammonium carbonate, ammonium phosphate, ammonium phosphate dibasic (DAP), ammonium phosphate monobasic (MAP), urea, ammonium hydrogen sulphate, ammonium sulphate, ammonium nitrate, calcium nitrate, kieserite, magnesium sulphate, dolomite, bunrt dolomite, magnesium nitrate, magnesium oxide, boric acid, boron oxide, sodium tetraborate, disodium octaborate tetrahydrate, and a combination thereof.

15. The process according to any preceding claim, wherein the process comprises stirring the mixture for a pre-determined period of time.

16. The process according to any preceding claim, wherein the process further comprises adding biomass to the mixture.

17. The process according to any preceding claim, wherein the process further comprises casting the mixture into a mould to form the solid soil conditioner.