CLAIMS

1. A desiccation apparatus, the apparatus comprising:

a hollow drum mounted for revolution about a substantially horizontal axis, the drum being defined by a shell having an interior surface and an exterior surface, wherein a porous liner is provided on at least a portion of the inner surface; and

a means to generate airflow through the hollow drum in a direction parallel to an elongate axis of the drum.

2. A desiccation apparatus according to claim 1, wherein the desiccation apparatus is adapted to remove water and other liquids from a wet feedstock, thereby reducing the liquid content of the feedstock.

3. A desiccation apparatus according to claim 1, wherein the porous liner is constructed from a material selected from the group comprising porous textiles, porous fabrics, porous rubbers, porous plastics, porous ceramics, porous wood, porous cement, porous concrete or porous brick.

4. A desiccation apparatus according to any one of the preceding claims, wherein the liner is a woven or non-woven textile.

5. A desiccation apparatus according to any one of the preceding claims, wherein the liner covers at least 50 % of the interior surface

6. A desiccation apparatus according to any one of the preceding claims, wherein the shell is provided with a number of perforations.

7. A desiccation apparatus according to claim 6, wherein the perforations are in communication with the porous liner.

8. A desiccation apparatus according to any one of the preceding claims, wherein the ratio of the diameter of the drum to the length of the drum is between 1:2.5 and 1:10.

9. A desiccation apparatus according to any one of the preceding claims, wherein the desiccation apparatus further comprises a feed inlet.

10. A desiccation apparatus according to any one of the preceding claims, wherein the desiccation apparatus further comprises an outlet.

11. A desiccation apparatus according to any one of the preceding claims, wherein the desiccation apparatus further comprises a rotating means for controllably rotating the hollow drum.

12. A desiccation apparatus according to any one of the preceding claims, wherein the means for generating airflow through the hollow drum is a fan or air blower.

13. A method for the removal of water from a feedstock comprising water, the method comprising:

introducing the feedstock into a hollow drum mounted for revolution about a substantially horizontal axis, the drum being defined by a shell having an interior surface and an exterior surface , wherein a porous liner is provided on at least a portion of the inner surface;

generating an airflow through the hollow drum in a direction parallel to an elongate axis of the drum; and

at least periodically rotating the hollow drum.

14. A method according to claim 13, wherein the volume of feedstock is controlled to between 5% and 40 % of the internal volume of the drum.

15. A method according to any one of claim 13 or 14, wherein the speed of the airflow is at least 2 km/hr.

16. A method according to any one of claims 13 to 15, wherein the airflow is passed through the drum at a rate of at least 2.5 m^3/s.

17. A method according to any one of claims 13 to 16, wherein the feedstock is selected from the group comprising pellets, powders, seeds, biomass matter, muds, sludges, lumps, slurry, suspensions, ores, concentrates and agglomerates.

18. A method according to any one of claims 13 to 17, wherein the apparatus is continuously operated or batch operated.

19. A method according to any one of claims 13 to 18, wherein the drum is adapted to rotate at a rate of between 1 and 25 revolutions per minute.

20. A method according to any one of claims 13 to 19, wherein the shell is provided with a number of perforations in communication with the porous liner