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 or 2, wherein the apparatus further comprises a liner provided on at least a portion of the interior surface.~~

~~4. A desiccation apparatus according to claim 3, wherein the liner is a porous liner.~~

~~5.~~3. A desiccation apparatus according to claim ~~3 or 4~~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.

~~6.~~4. A desiccation apparatus according to any one of ~~claims 3 to 5~~the preceding claims, wherein the liner is a woven or non-woven textile.

~~7.~~5. A desiccation apparatus according to any one of ~~claims 3 to 6~~ the preceding claims, wherein the liner covers at least 50 % of the interior surface

~~8.~~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~~9. 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.

~~10.~~9. A desiccation apparatus according to any one of the preceding claims, wherein the desiccation apparatus further comprises a feed inlet.

~~11.~~10. A desiccation apparatus according to any one of the preceding claims, wherein the desiccation apparatus further comprises an outlet.

~~12.~~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.

~~13.~~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.

~~14.~~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.

~~15.~~14. A method according to claim ~~14~~13, wherein the volume of feedstock is controlled to between 5% and 40 % of the internal volume of the drum.

~~16.~~15. A method according to any one of claim ~~14~~ 13 or ~~15~~14, wherein the speed of the airflow is at least 2 km/hr.

~~17.~~16. A method according to any one of claims ~~14~~ 13 to ~~16~~15, wherein the airflow is passed through the drum at a rate of at least 2.5 m^3/s.

~~18.~~17. A method according to any one of claims ~~14~~ 13 to ~~17~~16, wherein the feedstock is selected from the group comprising pellets, powders, seeds, biomass matter, muds, sludges, lumps, slurry, suspensions, ores, concentrates and agglomerates.

~~19.~~18. A method according to any one of claims ~~14~~ 13 to ~~18~~17, wherein the apparatus is continuously operated or batch operated.

19. A method according to any one of claims ~~14~~ 13 to ~~19~~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