WHAT IS CLAIMED IS:

1. A process for manufacturing a nutritional powder, the process comprising:

introducing an aqueous slurry comprising at least one of protein, carbohydrate, and fat into an evaporator, wherein the aqueous slurry has a total solids content of from 15% by weight to 40% by weight prior to evaporation;

evaporating the aqueous slurry, wherein ultrasonic energy is applied during evaporation, wherein the evaporated and ultrasonically-treated aqueous slurry has a total solids content of from 55% by weight to 65% by weight; and once evaporated and ultrasonically-treated

drying the evaporated and ultrasonically-treated aqueous slurry to produce the nutritional powder.

2. The process of claim 1, wherein the aqueous slurry ~~comprises~~ has a total solids content prior to evaporation of from ~~about~~ 30% by weight to ~~about~~ 40% by weight.

3. The process of claim 1, wherein the evaporated and ultrasonically-treated aqueous slurry ~~comprises~~ has a total solids content ~~after evaporation of at least 55% by weight~~ of from 59% by weight to 62% by weight.

4. The process of claim 1, wherein the ultrasonic energy is applied at a frequency of from ~~about~~ 15 kHz to ~~about~~ 50 kHz.

5. The process of claim 1, wherein the ultrasonic energy is applied in an amount of from ~~about~~ 75 watts to ~~about~~ 16 kilowatts for a time period of from ~~about~~ 0.1 seconds to ~~about~~ 30 seconds.

6. A process for manufacturing a nutritional powder, the process comprising:

heating an aqueous slurry comprising at least one of protein, carbohydrate, and fat;

introducing the heated aqueous slurry into an evaporator, wherein the heated aqueous slurry has a total solids content of from 15% by weight to 40% by weight prior to evaporation;

evaporating the heated aqueous slurry in a first evaporation effect to a total solids content of from ~~about~~ 45% by weight to ~~about~~ 49% by weight;

applying ultrasonic energy to the evaporated aqueous slurry;

further evaporating the ultrasonically-treated aqueous slurry in a second evaporation effect to a total solids content of from 55% by weight to ~~about~~ 65% by weight; and

spray drying the evaporated and ultrasonically-treated aqueous slurry to produce the nutritional powder.

7. The process of claim 6, wherein the heated aqueous slurry ~~comprises~~ has a total solids content prior to evaporation in the first evaporation effect of from ~~about~~ 30% by weight to ~~about~~ 40% by weight.

8. The process of claim 6, wherein the evaporated and ultrasonically-treated aqueous slurry ~~comprises~~ has a total solids content ~~after evaporation~~ of at least 59% by weight after evaporation in the second evaporation effect.

9. The process of claim 6, wherein the ultrasonic energy is applied at a frequency of from ~~about~~ 15 kHz to ~~about~~ 50 kHz.

10. The process of claim 6, wherein the ultrasonic energy is applied in an amount of from ~~about~~ 75 watts to ~~about~~ 16 kilowatts for a time period of from ~~about~~ 0.1 seconds to ~~about~~ 30 seconds.

11. A process for manufacturing a nutritional powder, the process comprising:

applying ultrasonic energy to an aqueous slurry comprising at least one of protein, carbohydrate, and fat;

evaporating the ~~ultrasonic-treated~~ ultrasonically-treated aqueous slurry in an evaporator, wherein the ultrasonically-treated aqueous slurry has a total solids content of from 15% by weight to 40% by weight prior to evaporation and the evaporated and ultrasonically-treated aqueous slurry has a total solids content of from 55% by weight to 65% by weight; and once ultrasonically-treated and evaporated

drying the evaporated and ultrasonically-treated aqueous slurry to produce the nutritional powder.

12. The process of claim 11, wherein the ultrasonically-treated aqueous slurry ~~comprises~~ has a total solids content prior to evaporation of from ~~about~~ 30% by weight to ~~about~~ 40% by weight.

13. The process of claim 11, wherein the evaporated and ultrasonically-treated aqueous slurry ~~comprises~~ has a total solids content ~~after evaporation of at least 55% by weight~~ of from 59% by weight to 62% by weight.

14. The process of claim 11, wherein the ultrasonic energy is applied at a frequency of from ~~about~~ 15 kHz to ~~about~~ 50 kHz.

~~15. An ultrasonically-produced nutritional powder prepared by the process of:~~

~~introducing an aqueous slurry comprising at least one of protein, carbohydrate, and fat into an evaporator;~~

~~evaporating the aqueous slurry, wherein ultrasonic energy is applied during evaporation; and~~

~~drying the evaporated aqueous slurry to produce the nutritional powder.~~