CLAIMS

What is claimed is:

1. A method comprising:

adding at least one of a fatty acid, an oil, or a combination thereof to lecithin, thus producing a lecithin with improved interfacial activity.

2. The method of claim 1, further comprising:

determining an acetone insoluble (AI) value of the lecithin; or

determining an acid value (AV) of the lecithin.

3. The method of claim 1 or claim 2, wherein the adding the at least one of the fatty acid, the oil, or the combination thereof to the lecithin has an effect selected from the group consisting of decreasing the acetone insoluble (AI) value of the lecithin, increasing the acid value (AV) of the lecithin, and combinations of any thereof.

4. The method of claim 1 or claim 2, wherein the lecithin is selected from the group consisting of soybean lecithin, sunflower lecithin, rapeseed lecithin, egg lecithin, corn lecithin, peanut lecithin, algal lecithin and combinations of any thereof.

5. The method of claim 1 or claim 2, wherein the acetone insoluble (AI) value of the lecithin with improved interfacial activity is from about 60% to about 70%.

6. The method of claim 1 or claim 2, wherein the acid value (AV) of the lecithin with improved interfacial activity is a maximum of 30.00 mg KOH/g.

7. The method of claim 1 or claim 2, wherein the acid value (AV) of the lecithin with improved interfacial activity is from about 22 mg KOH/g to about 35 mg KOH/g.

8. The method of claim 1 or claim 2, wherein the fatty acid is selected from the group consisting of soybean fatty acids, palm fatty acids, palm oleic fatty acids, sunflower fatty acids, cocoa butter fatty acids, canola fatty acids, flax seed fatty acids, hemp seed fatty acids, walnut fatty acids, pumpkin seed fatty acids, safflower fatty acids, sesame seed fatty acids, erucic acid, behenic acid, and combinations of any thereof.

9. The method of claim 1 or claim 2, wherein the oil is selected from the group consisting of soybean oil, canola oil, coconut oil, corn oil, cottonseed oil, olive oil, palm oil, peanut oil, rapeseed oil, safflower oil, sesame oil, sunflower oil, almond oil, beech nut oil, cashew oil, hazelnut oil, macadamia oil, pecan oil, pine nut oil, pistachio oil, walnut oil,

amaranth oil, avocado oil, tallow nut oil, flax seed oil, grape seed oil, hemp oil, mustard oil, tigernut oil, wheat germ oil, and combinations of any thereof.

10. A method of standardizing lecithin comprising:

combining a fatty acid with the lecithin.

11. The method of claim 10, further comprising determining a fatty acid profile of the lecithin.

12. The method of claim 11, further comprising selecting the fatty acid to have a similar amount of saturation as the fatty acid profile of the lecithin.

13. The method of claim 10 or claim 11, wherein the method of standardizing the lecithin does not comprise altering a phospholipid component of the lecithin.

14. The method of claim 10 or claim 11, wherein the fatty acid is combined with the lecithin such that the lecithin has an acetone insoluble (AI) value of about 62-65% and an acid value (AV) of about 24-32 mg KOH/g.

15. The method of claim 10 or claim 11, wherein the lecithin is selected from the group consisting of soybean lecithin, sunflower lecithin, rapeseed lecithin, egg lecithin, corn lecithin, peanut lecithin and combinations of any thereof.

16. The method of claim 10 or claim 11, wherein the lecithin is a blend of soybean lecithin and sunflower lecithin.

17. The method of claim 16, wherein the blend comprises from about 10% to about 90% sunflower lecithin.

18. The method of claim 16, wherein the blend comprises from about 30% to about 70% sunflower lecithin.

19. The method of claim 10 or claim 11, wherein the lecithin is a blend of rapeseed lecithin and sunflower lecithin.

20. The method of claim 19, wherein the blend comprises from about 10% to about 90% sunflower lecithin.

21. The method of claim 19, wherein the blend comprises from about 30% to about 70% sunflower lecithin.

22. The method of claim 10 or claim 11, wherein the fatty acid is derived from a plant-based source and selected from the group consisting of soybean fatty acids, palm fatty acids, palm oleic fatty acids, sunflower fatty acids, cocoa butter fatty acids, canola fatty acids,

flax seed fatty acids, hemp seed fatty acids, walnut fatty acids, pumpkin seed fatty acids, safflower fatty acids, sesame seed fatty acids, erucic acid, behenic acid, and combinations of any thereof.

23. The method of claim 10 or claim 11, further comprising:

adding an oil to the lecithin;

wherein the oil is selected from the group consisting of soybean oil, canola oil, coconut oil, corn oil, cottonseed oil, olive oil, palm oil, peanut oil, rapeseed oil, safflower oil, sesame oil, sunflower oil, almond oil, beech nut oil, cashew oil, hazelnut oil, macadamia oil, pecan oil, pine nut oil, pistachio oil, walnut oil, amaranth oil, avocado oil, tallow nut oil, flax seed oil, grape seed oil, hemp oil, mustard oil, tigernut oil, wheat germ oil, and combinations of any thereof.

24. A method of improving rheology of a fat-containing confectionary comprising:

adding lecithin having an improved interfacial activity to a fat-containing confectionary formulation, thus producing a fat-containing confectionary with a property selected from the group consisting of decreased yield value (YV), decreased plastic viscosity (PV), and the combination thereof.

25. The method of claim 24, wherein the fat-containing confectionary comprises chocolate.

26. The method of claim 24, wherein the fat-containing confectionary comprises a compound coating.

27. The method of claim 24 or claim 25, wherein the lecithin having improved interfacial activity has a property selected from the group consisting of a decreased acetone insoluble (AI) value as compared to crude lecithin, an increased acid value (AV) as compared to crude lecithin, and combinations of any thereof.

28. The method of claim 24 or claim 25, wherein the lecithin having improved interfacial activity comprises at least one added fatty acid selected from the group consisting of soybean fatty acids, palm fatty acids, palm oleic fatty acids, sunflower fatty acids, cocoa butter fatty acids, canola fatty acids, flax seed fatty acids, hemp seed fatty acids, walnut fatty acids, pumpkin seed fatty acids, safflower fatty acids, sesame seed fatty acids, erucic acid, behenic acid, and combinations of any thereof.

29. The method of claim 28, wherein the at least one added fatty acid has a similar

amount of saturation to a fatty acid profile of the lecithin.

30. The method of claim 28, wherein the at least one added fatty acid has a different fatty acid profile compared to the lecithin.

31. The method of claim 24 or claim 25, wherein the lecithin having improved interfacial activity is selected from the group consisting of soybean lecithin, sunflower lecithin, rapeseed lecithin, egg lecithin, corn lecithin, peanut lecithin, algal lecithin, and combinations of any thereof.

32. The method of claim 28 wherein the lecithin having improved interfacial activity comprises rapeseed lecithin and sunflower fatty acids.

33. The method of claim 28, wherein the lecithin having improved interfacial activity comprises soybean lecithin and sunflower fatty acids.

34. The method of claim 24 or claim 25, wherein the adding the lecithin to the fat-based confectionary formulation step comprises adding up to 0.75% by weight of the lecithin to the fat-based confectionary formulation.

35. The method of claim 24 or claim 25 wherein the lecithin having improved interfacial activity comprises an oil selected from the group consisting of soybean oil, canola oil, coconut oil, corn oil, cottonseed oil, olive oil, palm oil, peanut oil, rapeseed oil, safflower oil, sesame oil, sunflower oil, almond oil, beech nut oil, cashew oil, hazelnut oil, macadamia oil, pecan oil, pine nut oil, pistachio oil, walnut oil, amaranth oil, avocado oil, tallow nut oil, flax seed oil, grape seed oil, hemp oil, mustard oil, tigernut oil, wheat germ oil, and combinations of any thereof.