

What is claimed is:

1. A method for preparing a plant protein composition comprising:
 - (a) adding an alkaline phosphate salt composition to an aqueous solution of a plant protein isolate having a protein content of 5-20%, wherein the added alkaline phosphate salt to protein content on a dry weight basis is 3-98%, 3-45%, 4-20%, or 10-95%;optionally, the method further comprising:
 - (b) pasteurizing the solution of step (a) to a temperature of 73-86°C for at least 30-70 seconds; and
 - (c) drying the solution of step (b) to form a plant protein composition having a protein content of at least 70%.
2. The method of claim 1, wherein the alkaline phosphate salt composition comprises a salt of an orthophosphate ion, metaphosphate, trimetaphosphate, and/or hexametaphosphate with an alkali metal ion and/or an alkaline earth metal ion.
3. The method of claim 2, wherein the alkaline phosphate salt composition comprises trisodium phosphate and/or tripotassium phosphate; optionally, wherein the alkaline phosphate salt composition comprises trisodium phosphate and/or tripotassium phosphate in an amount of 5-100 wt%.
4. The method of claim 3, wherein the added alkaline phosphate salt to protein content on a dry weight basis is 3-45%, or 4-20%.
5. The method of claim 2, wherein the alkaline phosphate salt composition comprises hexametaphosphate sodium salt and/or hexametaphosphate potassium salt; optionally, in an amount of 5-100 wt%.
6. The method of claim 5, wherein the added alkaline phosphate salt to protein content on a dry weight basis 10-95%.
7. The method of claim 2, wherein the alkaline phosphate salt composition comprises:
 - (a) trisodium phosphate and/or tripotassium phosphate; (b) disodium phosphate and/or dipotassium phosphate; and (c) hexametaphosphate sodium salts and/or hexametaphosphate potassium salts; optionally, 5-20 wt% trisodium phosphate and/or tripotassium phosphate; 20-40 wt% disodium phosphate and/or dipotassium

phosphate; and 50-80 wt% hexametaphosphate sodium salts and/or hexametaphosphate potassium salts.

8. The method claims 1, wherein the aqueous solution of plant protein isolate is pH 5-10; optionally, wherein the plant protein isolate is pH 6.5-9.5.
9. The method of claim 1, wherein the plant protein isolate is:
 - (a) a base-extracted plant protein isolate; optionally, wherein the base-extracted plant protein isolate is prepared by extraction of a plant protein concentrate solution with 10-100 mM NaOH; or
 - (b) a neutral-extracted plant protein isolate; optionally, wherein the neutral-extracted plant protein isolate is prepared by extraction of a plant protein concentrate solution with hot water.
10. The method of claim 1, wherein step (c) comprises spray-drying the solution to form a powder plant protein composition; optionally, wherein the powder plant protein composition comprises a protein content of 70-95 wt%.
11. The method of claim 1, wherein the plant protein composition exhibits an aqueous solubility at pH 7 of at least 20%, at least 25%, at least 30%, at least 40%, at least 50%, or at least 60%.
12. The method of claim 1, wherein the aqueous solubility at pH 7 of the plant protein composition relative to the aqueous solubility at pH 7 of a plant protein composition prepared without adding an alkaline phosphate salt composition to an aqueous solution of plant protein isolate having a protein content of 5-20% is increased by at least 2-fold, at least 3-fold, at least 4-fold, at least 5-fold, or more.
13. The method of claim 1, wherein the plant protein isolate is: (a) from a legume; (b) from a pea plant; or (c) is pea protein isolate.
14. A plant protein composition prepared according to the method of claim 1.
15. A plant protein composition comprising a dried plant protein isolate comprising at least 70 wt% protein content and an added alkaline phosphate salt to protein content on a dry weight basis is 3-98%, 3-45%, 4-20%, or 10-95%.

16. The composition of claim 15, wherein the alkaline phosphate salt comprises a salt of an orthophosphate ion, metaphosphate, trimetaphosphate, and/or hexametaphosphate with an alkali metal ion and/or an alkaline earth metal ion.
17. The composition of claim 15, wherein the alkaline phosphate salt comprises trisodium phosphate and/or tripotassium phosphate; optionally, wherein the alkaline phosphate salt comprises trisodium phosphate and/or tripotassium phosphate in an amount of 5-100 wt%, 70-100 wt%, 80-100 wt%, or 90-100 wt%.
18. The composition of claim 17, wherein the added alkaline phosphate salt to protein content on a dry weight basis is 3-45%, or 4-20%.
19. The composition of claim 15, wherein the alkaline phosphate salt comprises hexametaphosphate sodium salt and/or hexametaphosphate potassium salt; optionally, in an amount of 5-100 wt%, 50-80%, 70-100 wt%, 80-100 wt%, or 90-100 wt%.
20. The composition of claim 19, wherein the added alkaline phosphate salt to protein content on a dry weight basis is 10-95%.
21. The composition of claim 15, wherein the alkaline phosphate salt comprises: (a) trisodium phosphate and/or tripotassium phosphate; and (b) hexametaphosphate sodium salts and/or hexametaphosphate potassium salts; optionally, 5-20 wt% trisodium phosphate and/or tripotassium phosphate, and 50-80 wt% hexametaphosphate sodium salts and/or hexametaphosphate potassium salts.
22. The composition of claim 15, wherein the composition has an aqueous solubility at pH 7 of at least 20%, at least 25%, at least 30%, at least 40%, at least 50%, or at least 60%.
23. The composition of claim 15, wherein the composition has an aqueous solubility at pH 7 relative to the aqueous solubility at pH 7 of a plant protein composition without the alkaline phosphate salt is increased by at least 2-fold, at least 3-fold, at least 4-fold, at least 5-fold, or more.
24. The composition of claim 15, wherein the plant protein isolate is a base-extracted plant protein isolate; optionally, a base-extracted plant protein isolate prepared by extraction of a plant protein concentrate solution with 10-100 mM NaOH.

25. The composition of claim 15, wherein the plant protein isolate is a neutral-extracted plant protein isolate; optionally, a neutral-extracted plant protein isolate is prepared by extraction of a plant protein concentrate solution with hot water.
26. The composition of claim 15, wherein the plant protein isolate is from a legume; a pea plant; or is a pea protein isolate.
27. A food or beverage product comprising a plant protein composition prepared according to the method of claim 1.
28. A food or beverage product comprising a plant protein composition according to claim 15.