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This product contained about 9% free moisture and about 21% water of hydration. Calcium stearate in amounts of about 8 pounds to 10 pounds per ton satisfactorily prevents lumping in products of Examples 4, 5, and 6.

In preparing Formulas (1), (2), (4), and (5) without addition of wetting agents, about 60 hours to 72 hours have been required to complete hydration of the phosphate salt. In preparing Formulas (3) and (6) the time has been more variable, depending upon the physical characteristics of the concentrate, and time has run from about 24 hours to 96 hours. Where a wetting agent has been employed to the extent of about 0.1% to 0.2%, the time necessary to complete hydration has dropped in comparable cases from about 60 hours to about 40 hours, and in about the same proportion in other instances. Various wetting agents have yielded approximately the same results. Other appropriate wetting agents which are stable under existent acid conditions as above indicated include: sulphonated fish oils and sulphonated vegetable oils, polyoxyethylene sorbitol fatty acid esters (such as the "Tweens" of Atlas Powder Company) and polyoxyethylene glycol fatty acid esters, which are examples of edible wetting agents that may be used. Alkyl sulfates, sulfated esters and sulphonated aromatics would be satisfactory when the proportions are too small to be toxic.

By way of further definition of various terms used above and in the claims, the concentrated fish solubles are also known as "condensed fish solubles," and the fish glandular hydrolysates are referred to also as "condensed fish glandular hydrolysates," both having been included in the term "condensed fish concentrates." The term "fish concentrates" is intended to include not only the condensed fish solubles and the condensed fish glandular hydrolysates, but also other wet fish concentrates such as fish liver concentrates, and kindred semi-solid fish products. From the standpoint of highly liquid or slurry type of condensed fish solubles and condensed fish glandular hydrolysates, these are both intended to be included also within the term "fish soluble concentrates" which would include similar liquid products of similar high fish protein content, including any form of fish protein hydrolysates in addition to the fish glandular hydrolysates.

Inasmuch as variations of the generic invention herein disclosed will become apparent to those skilled in this art, it is intended to protect all such modifications as fall within the scope of the patent claims.

We claim as our invention:

1. In a dry feedstuff: a fish concentrate product initially containing fish solids in soluble and insoluble form in a substantial amount of water forming a semisolid; and an edible phosphate salt initially capable of combining with several molecules of water and present in such feedstuff in proportion holding said water as water of crystallization in sufficient proportion to yield a dry feed product.

2. In a dry feed stuff: an edible hydrated phosphate salt holding several molecules of water of crystallization; and a fish concentrate containing soluble and insoluble forms of fish solids, water being present in amount normally forming a wet semisolid of said soluble and insoluble fish solids, and said salt being present in

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proportion holding such water as said water of crystallization to an extent yielding a dry concentrate product constituting said feed stuff, said salt being hydrated disodium phosphate.

3. A method for producing a feedstuff comprising: preparing a fish product containing fish solids in both soluble and insoluble form in water yielding a slurry; and supplying therein a quantity of edible phosphate salt capable of combining with several molecules of water, and employed in proportion to yield a substantially dry product.

4. A method according to claim 3 including the additional step of allowing the slurry containing the phosphate salt to cure for a time whereby the phosphate salt takes up the water as water of crystallization and yields a dry product.

5. A method as in claim 4 including the incorporation in the salt-containing slurry of an edible wetting agent amounting to less than about one per cent of the total and sufficient to reduce substantially the time for the salt to take up the water.

6. A method for producing a feed stuff including: preparing a fish product containing fish solids in both soluble and insoluble forms in water yielding a slurry; and supplying therein a quantity of edible phosphate salt which combines with several molecules of said water and is employed in proportion to yield a substantially dry feed stuff product, said salt being disodium phosphate.

7. A method as in claim 3 wherein dicalcium phosphate is incorporated in the slurry in the presence of ammonia to yield hydrated calcium ammonium phosphate.

8. A method for producing a feedstuff, comprising the steps of: preparing an aqueous fish product from fish press liquor, such aqueous product containing fish constituents in both soluble and insoluble form and having a wet, semisolid consistency; combining with said aqueous product proteinaceous meal of lesser water content than the water content of said aqueous fish product and thereby partially drying said fish product; supplying in said product an edible phosphate salt capable of combining with several molecules of water of said product and in proportion to yield a dry feedstuff; and curing the resultant mixture to effect hydration of said edible salt and thereby render the resultant feedstuff dry.

9. A method for producing a feed stuff including the steps of: preparing an aqueous fish product from fish press liquor, such aqueous product containing fish constituents in both soluble and insoluble forms and having a wet semi-solid consistency; combining with said aqueous product a proteinaceous meal of lesser water content than the water content of said aqueous fish product and thereby partially drying said fish product; supplying in said product an edible phosphate salt which combines with several molecules of water of said product, said salt being generally anhydrous disodium phosphate supplied in proportion to yield a dry feed stuff; and curing the resultant mixture to effect hydration of said salt and thereby render the feed stuff dry.

10. A method as in claim 8 wherein the salt selected is calcium ammonium phosphate.

11. A method as in claim 8 including incorporating an edible wetting agent for the fish constituents in amount to reduce materially the time for the salt to become fully hydrated.