Starter Base Mix Specification – Page 1 of 2 Last updated June, 2015

| Name: | | | Pr | oduct name: Starter Base | e Mix |
|---|-----------------|---------------------------|---------|--|------------------------|
| Address: | | | Qı | uantity, lb | Package size, lb |
| Phone:Fax: | | | Us | Grower diets | : :65 lb : s: |
| Date: | | | Pr | rice desired (circle one) | \$/ton FOB |
| Date Needed: | | | | | \$/ton Delivered |
| Amino acids | Units | Guaranteed per Lb of E | • | Sources | |
| Lysine | % | 7.2 | | Lysine HCI | |
| Methionine | % | 5.2 | | DL-Methionine | |
| Threonine | 70 | 4.3 | | L-Threonine | |
| Vitamins | Units | Guaranteed per Lb of E | Potency | Sources | |
| Vitamin A | IU | 123,0 | 000 | Vitamin A acetate (retiny | /l acetate) |
| Vitamin D | IU | 30.750 | | Vitamin D ₃ (cholecalciferol) with at least 50% supplied by a vitamin A/D ₃ cross-linked beadlet | |
| Vitamin E (Pick one | IU | 615 d | | dl-α-tocophorol acetate | |
| source and provide source with quotation) | IU | 307 | | d-α-tocophorol acetate (| Natural vitamin E) |
| Vitamin K (menadione) | mg | | | MNB (Menadione nicotir | namide bisulfite) |
| Vitamin B ₁₂ | mg | 0.538 | | Cyanocobalamin | |
| Niacin | mg | 1150 | | Niacinamide, Nicotinic a | cid |
| Pantothenic acid | mg | 380 |) | d-calcium pantothenate | |
| Riboflavin | mg | İ | | Crystalline riboflavin | |
| | | Guaranteed of Base | • | | |
| Minerals | Units | mg/lb | ppm | Sources | |
| Copper | | 230 | 500 | Copper sulfate | |
| lodine | | 4.10 | 9.1 | Ca iodate, Ethylenediam (EDDI) | nine dihydriodide |
| Iron | | 1,535 | 3,380 | Ferrous sulfate | |
| Manganese | | 460 | 1,015 | Manganese sulfate, mar | nganese oxide |
| Selenium | | 4.10 | 9.1 | Sodium selenite | _ |
| Zinc | | 1,535 | 3,380 | Zinc sulfate, zinc oxide | |
| Calcium (Minimum) (Maximum) | % % | 15.8 | | Calcium carbonate, mon or dicalcium phosphate | ocalcium phosphate, |
| Available phosphorus | % | 6.6 | | Monocalcium phosphate phosphate | or dicalcium |
| NaCl (Minimum) | % | 10.0 | | | |
| (Maximum) | % | | | Feed or food-grade salt | |

Starter Base Mix Specification – Page 2 of 2

| Other | Units | Guaranteed Potency per Lb of Base Mix | |
|---|-------|---------------------------------------|---|
| Phytase (Pick one source and provide source with | FTU | 10,460 | Axtra TPT (Dupont) |
| quotation) – Must use guaranteed phytase level | FTU | | OptiPhos PF (Huevepharma); Quantum Blue G (AB Vista) |
| provided by the phytase manufacturer. | FYT | 17,400 | Ronozyme Hi-Phos GT (DSM) |
| Carrier | | | |
| Oil | % | | Mineral or vegetable |

- a) Guaranteed to stay free-flowing, lump free, and non-dusty.
- b) The final moisture level will be less than 10% and 98% product will flow through #20 U.S./Canadian screen.
- c) When bagged, all bags must be labeled with tags. Tags should include date of manufacture, lot number, guaranteed analysis, inclusion rate, and proposed use of the product.
- d) Formulate using the guaranteed analysis from the supplier for the nutrient. We can request label copies of your ingredients and copies of your mixing records to show quantities of ingredients per batch.
- e) Permission must be obtained before using an alternative source for any ingredient.

Sow Base Mix Specification – Page 1 of 2 Last updated June, 2015 Product name: Sow Base Mix with phyta

| Name: | | | Р | roduct name: <u>Sow Base N</u> | <u>Vlix with phytase</u> |
|--|-------|--------------------|-------|---|--------------------------|
| Address: | | | _ | | |
| | | | C | Quantity, lb | Package size, lb |
| | | | L | Jse level, lb/ton Sow diets | |
| Phone: | | | | Nursery diets Grower diets | s: s: |
| Fax: | | | | Finisher diet | s: S: |
| Date: | | - | Р | Price desired (circle one) | \$/ton FOB |
| Date Needed: | | | | | \$/ton Delivered |
| | | Guaranteed | | | |
| Vitamins | Units | per Lb of E | | | |
| Vitamin A | IU | 106,0 | 000 | Vitamin A acetate (retiny | |
| Vitamin D | IU | 26,6 | 00 | Vitamin D ₃ (cholecalcife supplied by a vitamin A/ | |
| Vitamin E (Pick one source and provide | IU | 80 | 0 | dl-α-tocopho | orol acetate |
| source with quotation) | IU | 400 | 0 | d-α-tocophorol acetat | e (Natural vitamin E) |
| Vitamin K (menadione) | mg | 53 | 3 | MNB (Menadione nicotii | namide bisulfite) |
| Vitamin B ₁₂ | mg | | | Cyanocobalamin | |
| Niacin | mg | | | Niacinamide, Nicotinic a | cid |
| Pantothenic acid | mg | | | d-calcium pantothenate | |
| Riboflavin | mg | | | Crystalline riboflavin | |
| Choline | mg | 6,660 | | Choline chloride | |
| Biotin | mg | 2.6 | 6 | Biotin | |
| Folacin | mg | 20 |) | Folic acid | |
| Pyridoxine | mg | 60 | | Pyridoxine HCI | |
| Carnitine | mg | 600 | 0 | L-carnitine | |
| Chromium | mg | 2.40 | | Chromium picolinate | |
| | 1 | | | _ | |
| | | Guaranteed of Base | | ' | |
| Minerals | Units | mg/lb | ppm | Sources | |
| Copper | | 200 | 440 | Copper sulfate, Copper | chloride |
| lodine | | 3.60 | 7.9 | Ca iodate, Ethylenediam (EDDI) | nine dihydriodide |
| Iron | | 1,330 | 2,930 | Ferrous sulfate | |
| Manganese | | 400 | 880 | Manganese sulfate, mar | nganese oxide |
| Selenium | | 3.60 | 7.9 | Sodium selenite | <u> </u> |
| Zinc | | 1,330 | 2,930 | Zinc sulfate, zinc oxide | |
| Calcium (Minimum) | % | 19.5 | | · | acceleium phaephata |
| (Maximum) | % | 21.5 | | Calcium carbonate, mor or dicalcium phosphate | localcium phosphate, |
| | | | | Monocalcium phosphate | e or dicalcium |
| Available phosphorus | % | 9.2 | | phosphate | |
| NaCl (Minimum) | % | 13. | | | |
| (Maximum) | % | 14.0 | | Feed or food-grade salt | |

Sow Base Mix Specification – Page 2 of 2

| Other | Units | Guaranteed Potency per Lb of Base Mix | Sources |
|---|-------|---------------------------------------|---|
| Phytase (Pick one source and provide source with | FTU | 9,070 | Axtra TPT (Dupont) |
| quotation) – Must use guaranteed phytase level | FTU | | OptiPhos PF (Huevepharma); Quantum Blue G (AB Vista) |
| provided by the phytase manufacturer. | FYT | 15,100 | Ronozyme Hi-Phos GT (DSM) |
| Carrier | | | |
| Oil | % | | Mineral or vegetable |

- a) Guaranteed to stay free-flowing, lump free, and non-dusty.
- b) The final moisture level will be less than 10% and 98% product will flow through #20 U.S./Canadian screen.
- c) When bagged, all bags must be labeled with tags. Tags should include date of manufacture, lot number, guaranteed analysis, inclusion rate, and proposed use of the product.
- d) Formulate using the guaranteed analysis from the supplier for the nutrient. We can request label copies of your ingredients and copies of your mixing records to show quantities of ingredients per batch.
- e) Permission must be obtained before using an alternative source for any ingredient.

Grow-Finish Base Mix Specification – Page 1 of 2 Last updated February, 2017

| Name: | | | Р | roduct name: GF Base Mix | with lysine & phytase | |
|---|--------|---------------------------------------|----------|--|---------------------------------------|--|
| Address: | | | <u> </u> | uantity, lb | Package size, lb | |
| · | | | | • | • | |
| Phone: | | _ | U | se level, lb/ton Sow diets: Nursery diets: | | |
| Fax: | | | | Grower diets: Finisher diets | 45-50 | |
| | | | | | | |
| Date: | | _ | Р | rice desired (circle one) | \$/ton FOB | |
| Date Needed: | | | | | \$/ton Delivered | |
| Amino acids | Units | Guaranteed per Lb of I | | | | |
| Lysine | % | 5.2 | 24 | Lysine HCI | | |
| | | 1 | | T | | |
| Vitamins | Units | Guaranteed per Lb of I | • | Sources | | |
| Vitamin A | IU | 96,0 | | | Vitamin A acetate (retinyl acetate) | |
| Vitamin D | IU | 1 | | Vitamin D ₃ (cholecalciferd supplied by a vitamin A/D | ol) with at least 50% | |
| Vitamin E (Pick one | IU | | | dl-α-tocophorol acetate | | |
| source and provide source with quotation) | IU | | | d-α-tocophorol acetate (N | Natural vitamin E) | |
| Vitamin K (menadione) | mg | + | | MNB (Menadione nicotina | · · · · · · · · · · · · · · · · · · · | |
| Vitamin B ₁₂ | mg | | | Cyanocobalamin | , | |
| Niacin | mg | | | Niacinamide, Nicotinic ac | id | |
| Pantothenic acid | mg | | | d-calcium pantothenate | | |
| Riboflavin | mg | 90 | | Crystalline riboflavin | | |
| | | Guaranteed of Bas | | , | | |
| Minerals | Units | mg/lb | ppm | Sources | | |
| Copper | | 300 | 660 | Copper sulfate | | |
| lodine | | 5.4 | 11.9 | Ca iodate, Ethylenediami (EDDI) | ne dihydriodide | |
| Iron | | 2,000 | 4,400 | Ferrous sulfate | | |
| Manganese | | · · · · · · · · · · · · · · · · · · · | | Manganese sulfate, manganese oxide | | |
| Selenium | | 5.4 | 11.9 | Sodium selenite | | |
| Zinc | | 2,000 | 4,400 | Zinc sulfate, zinc oxide | | |
| Calcium (Minimum) | % % | 20.0 | | Calcium carbonate, mond | ocalcium phosphate, | |
| (Maximum) | 70 | 21. | .0 | or dicalcium phosphate Monocalcium phosphate | or dicalcium | |
| Available phosphorus | % | 4.8 | | phosphate | oi dicalcium | |
| NaCl (Minimum) | % | 17. 20 | | Feed or food-grade salt | | |
| 1 11/12/21/11/11/11 | 1 % | , /// | | | | |

Grow-Finish Base Mix Specification – Page 2 of 2

| | Units | Guaranteed Potency per Lb of Base Mix | Sources |
|---|-------|---|---|
| Phytase (Pick one source and provide source with | FTU | 8,160 | Axtra TPT (Dupont) |
| quotation) – Must use guaranteed phytase level | FTU | 7,800 | OptiPhos PF (Huevepharma); Quantum Blue G (AB Vista) |
| provided by the phytase manufacturer. | FYT | 13,600 | Ronozyme Hi-Phos GT (DSM) |
| Carrier | | | |
| Oil | % | | Mineral or vegetable |

- a) Guaranteed to stay free-flowing, lump free, and non-dusty.
- b) The final moisture level will be less than 10% and 98% product will flow through #20 U.S./Canadian screen.
- c) When bagged, all bags must be labeled with tags. Tags should include date of manufacture, lot number, guaranteed analysis, inclusion rate, and proposed use of the product.
- d) Formulate using the guaranteed analysis from the supplier for the nutrient. We can request label copies of your ingredients and copies of your mixing records to show quantities of ingredients per batch.
- e) Permission must be obtained before using an alternative source for any ingredient.

Grow-Finish DDGS Base Mix Specification – Page 1 of 2 Last updated June, 2015

| Name Address | Product name: GF DDGS Base Mix | | |
|-----------------------|--|-------------------|--|
| Address | Quantity, lb F | Package size, lb | |
| Phone Fax Email | Use level, lb/ton Sow diets:_ Nursery diets:_ Grower diets:_ Finisher diets:_ | 40 to 45 lb 35 | |
| | Price desired (circle one) | \$/ton FOB | |

\$/ton Delivered

| | | | | \$/ton Delivered |
|--|-------|--------------------------------|------------|--|
| | | Guarantee | d Potency | |
| Amino acids | Units | per Lb of Base Mix | | Sources |
| Lysine | % | 11 | .8 | Lysine HCI |
| | | | | |
| | | | ed Potency | |
| Vitamins | Units | per Lb of | Base Mix | Sources |
| Vitamin A | IU | 96, | 000 | Vitamin A acetate (retinyl acetate) |
| Vitamin D | IU | | | Vitamin D ₃ (cholecalciferol) with at least 50% supplied by a vitamin A/D ₃ cross-linked beadlet |
| | | , | | |
| Vitamin E (Pick one source and provide | IU | 48 | 30 | dl-α-tocophorol acetate |
| source with quotation) | IU | 24 | 40 | d-α-tocophorol acetate (Natural vitamin E) |
| Vitamin K (menadione) | mg | 4 | 8 | MNB (Menadione nicotinamide bisulfite) |
| Vitamin B ₁₂ | mg | 0. | 42 | Cyanocobalamin |
| Niacin | mg | | | Niacinamide, Nicotinic acid |
| Pantothenic acid | mg | 300 | | d-calcium pantothenate |
| Riboflavin | mg | 9 | 0 | Crystalline riboflavin |
| | | Guaranteed Potency of Base Mix | | |
| Minerals | Units | mg/lb | ppm | Sources |
| Copper | | 300 | 660 | Copper sulfate |
| lodine | | 5.4 | 11.9 | Ca iodate, Ethylenediamine dihydriodide (EDDI) |
| Iron | | 2,000 | 4,400 | Ferrous sulfate |
| Manganese | | 600 | 1,320 | Manganese sulfate, manganese oxide |
| Selenium | | 5.4 | 11.9 | Sodium selenite |
| Zinc | | 2,000 | 4,400 | Zinc sulfate, zinc oxide |
| Calcium (Minimum) | % | 20 |).0 | Calcium carbonate, monocalcium phosphate, |
| (Maximum) | % | | | or dicalcium phosphate |
| Available phosphorus | % | 0.2 | | Monocalcium phosphate or dicalcium phosphate |
| NaCl (Minimum) | % | 17 | 7.0 | |
| (Maximum) | % | 20.0 | | Feed or food-grade salt |

Grow-Finish DDGS Base Mix Specification – Page 2 of 2

| | Units | Guaranteed Potency per Lb of Base Mix | Sources |
|--|---------------|---------------------------------------|---|
| Phytase (Pick one source and provide source with quotation) – Must use guaranteed phytase level | FTU or FYT | 8,160 | Axtra TPT (Dupont) |
| | FTU | | OptiPhos PF (Huevepharma); Quantum Blue G (AB Vista) |
| provided by the phytase manufacturer. | FYT | 13,600 | Ronozyme Hi-Phos GT (DSM) |
| Carrier | | | |
| Oil | % | | Mineral or vegetable |

- f) Guaranteed to stay free-flowing, lump free, and non-dusty.
- g) The final moisture level will be less than 10% and 98% product will flow through #20 U.S./Canadian screen.
- h) When bagged, all bags must be labeled with tags. Tags should include date of manufacture, lot number, guaranteed analysis, inclusion rate, and proposed use of the product.
- i) Formulate using the guaranteed analysis from the supplier for the nutrient. We can request label copies of your ingredients and copies of your mixing records to show quantities of ingredients per batch.
- j) Permission must be obtained before using an alternative source for any ingredient.