Lahave River Berry Farm Inc.

'Growing with Nature'

Contents

What is Neptune's Harvest Fish Hydrolysate?

Neptune's Harvest fish hydrolysate is a highly nutritional protein fertilizer, made by utilizing naturally occurring enzymes present in fresh North Atlantic fish.

A cold process, called Hydrolysis, is used which employs enzymes (natural biological catalysts) that break down fish, or fish frames (the part left after the fillet is removed for human consumption). The only manipulation the product undergoes is grinding and hydrolysis. This process yields a stable, non-odourless, liquid fertilizer that is an easy-to-use, safe product.

The nitrogen in Neptune's Harvest fish fertilizer is derived from fish protein in the form of amino acids which, when added to soil, slowly break down into basic nitrogen compounds. While a percentage of nitrogen becomes soluble due to the nature of the manufacturing process, no inorganic nitrogen has been added.

It takes 10 pounds of fish parts (gurry) to make one gallon of Neptune's Harvest Fish Fertilizer. In the past, there have been advantages in using manufactured chemical fertilizers. HOWEVER, as we now realize, this has been AT THE EXPENSE of the ENVIRONMENT and depletion of many soil elements. The continued application of only concentrated chemicals on the soil have reduced much of the biological life that contributes to the efficient utilization of many plant nutrients.

Neptune's Harvest hydrolyzed fish fertilizer does no biological damage to the soil and will promote the growth of beneficial biology making the soil less compact and better able to drain, yet hold moisture better for future plant use as it is needed. With Neptune's cold process, the vitamins, amino acids, enzymes, and growth hormones are not damaged or destroyed. Because no oils or proteins are removed, the nutrients remain in the soil longer, and lower N-P-K rates can be used to meet or exceed the results obtained by chemicals with much higher rates.

Some advantages to using hydrolyzed fish fertilizer are that it rebuilds soil fertility, gives excellent plant growth with increased yields, and it is made from a renewable aquatic resource. Neptune's hydrolysate fertilizer is filtered through a 165-mesh screen as a first step, and then through a 150-micron screen before it is packaged. This ensures an ease of application with most irrigation sprayer systems that is second to none.
Beware of imitations --- Neptune's Harvest is the leading manufacturer of fish hydrolysate fertilizers in the United States with extensive sales in the U.S. and throughout the world. All three fertilizers --- the fish, the seaweed and the fish/seaweed blend are OMRI approved and meet EcoCert requirements.

Hydrolyzed Fish Vs. Fish Emulsion

The main difference between Fish Emulsions, Solubles, or "so-called" Hydrolyzed Fish concentrates with the Nitrogen being four or greater, and Neptune's Harvest Hydrolyzed
Fish are as follows:

1. Neptune's Harvest is made from several species of edible North Atlantic Fish (the part that is left after the fillet is removed for human consumption). Using several different species is better, because each species has a different nutrient analysis profile, so you get a full range of nutrients, vitamins, amino acids, enzymes and growth hormones. We mix all the Hydrolyzed Fish in a 10,000-gallon holding tank before it is pumped into storage tanks. This process ensures a very consistent product from day to day and year to year. The fish we use are caught a minimum of three miles from shore and usually much further, in the icy, clean waters of the North Atlantic.

Emulsions are made from so-called "Trash Fish" (fish that people will not eat), usually Menhaden. Menhaden are caught in harbours and rivers on the coast, and thus are exposed to coastal pollutants. Also, lake fish used can contain mercury and PCB's, and won't contain the sea minerals and other nutrients found only in saltwater fish.

2. Neptune's Harvest unloads fishing boats, cuts the fish, grinds the fish remains and stabilizes them all the same day, so there is no offensive odour. Fresh fish does not smell ------ but lesser quality fish and emulsions stink!

3. Neptune's Harvest is cold-processed from start to finish. The fish is converted through the grinding process and by the naturally-occurring enzymes that continually break down the fish into a liquid. These enzymes are still alive in our final product as well, so they are there to keep your soil alive. We then screen-filter it to take out any remaining bone particles. Nothing else is removed from the product, and the only thing added is phosphoric acid to stabilize. It is more expensive than sulphuric acid, but it is safer to use for our employees and yours, and it something the plant needs anyway. This is why our phosphorous content is higher than fish emulsion, on the analysis.

Emulsions first remove the fish meal (protein) part of the fish and sell that for animal feed. Then they remove oils from the fish for Codfish Liver Oil or other products. Whatever is left after these processes is *BOILED* down to a 50% concentration and sold as fertilizer. This process has two major problems. First, when the product is boiled down to a 50% concentration, the chlorine can be as high as 14% in the final product. Second, once heat is used, all the heat-sensitive vitamins, amino acids, growth hormones and the enzymes are destroyed. Some companies add enzymes back into the product so they can call it a hydrolyzed process; but technically it is far from it, and is actually just a hydrolyzed emulsion. Note: Fish contains approximately 2.3% nitrogen. If a company is selling a fish with a higher analysis than that of nitrogen, it has been boiled down (or evaporated). Therefore no matter what the salesperson tries to tell you, the heat-sensitive components from the fish are gone. The only other possibility is that they have artificially added nitrogen from other sources.

4. Neptune's Harvest is put through a 165-mesh screen before going into the holding tank, and then a 150-micron screen before going into the final container and shipping. It is the consistency of chocolate milk and is very easy to apply.

Emulsions, on the other hand, are thick, having the consistency of molasses. They are hard to handle and are notorious for clogging sprayers and getting stuck in holding tanks. Because they are so thick, farmers and growers can't pump it all from their tanks, especially towards the bottom.

To summarize:

Neptune's Harvest HYDROLYSATE	EMULSIONS
Uses several species of Fish	Used 1 type of fish (Trash Fish)
No offensive odour	Stinks
Cold processed	Cooked
No oils removed	Oils removed
No proteins removed (except fillet)	Meal removed
No chlorine	Contains chlorine
Won't clog equipment	Clogs equipment

Nutrient Analysis of Hydrolyzed Fish 2-4-1

Elements ***n.d. = not detected**

Nitrogen	**2.23**
Phosphorus	**3.25**
Potassium	**0.30**
Calcium	**0.75**
Sulphur	**0.17**
Magnesium	**0.04**
Sodium	**0.16**
Iron	**26.0 ppm**
Manganese	**3.0 ppm**
Copper	**< 0.1 ppm**
Zinc (Total)	**8.8 ppm**
Boron	**2.5 ppm**
Aluminum	**8.0 ppm**
Barium	**< 0.1 ppm**
Mercury (Total)	**n.d.**
Selenium (Total)	**n.d.**
Nickel (Total)	**n.d.**
Cobalt (Total)	**n.d.**
Cadmium (Total)	**n.d.**
Arsenic (Total)	**n.d.**
Molybdenum (Total)	**n.d.**
Chromium	**n.d.**
Silver	**n.d.**
Lead (Total)	**n.d.**
PH	**3.5 S.U.**

Fat Analysis of Hydrolyzed Fish 2-4-1

Total Fat per Serving	2.96	% of Total Fat
Saturated Fat/Serving	1.23 g	41.46%
Polyunsaturated Fat/Serving	0.51 g	17.08%
Monounsaturated Fat/Serving	1.23 g	41.46%
Trans Fatty Acids	0.00 g	0.0%
Omega 3 Fatty Acids	0.06 g	2.01%
Omega 6 Fatty Acids	0.17 g	5.62%

The above total FAT report is on our mixed fish product, and represents minimum levels. At certain times of the year, we have access to fish with higher levels of fat and Omega 3 & 6 Fatty Acids (as for special reports).

E. Coli	n.d. cfu/g
Fecal Coliform	n.d. MPN/g
Salmonella	negative org/25h

*n.d. = not detected

OMRI
L i s t e d
Organic Materials Review Institute

Midwest Laboratories, Inc.
13611 B Street • Omaha, Nebraska 68144-3693 • (402) 334-7770 • FAX (402) 334-9121 • www.midwestlabs.com

Report #: 10-138-2094

Report To: SANDY PARCO
OCEAN CREST SEAFOODS INC
PO BOX 1183
GLOUCESTER MA 01931-1183

Lab #: 1711360

Date Reported: 18-May-10
Date Received: 13-May-10
Date Sampled:
Sample ID: 50710
Account #: 4217

LIQUID SEAWEED 5% CONC
0-0-1

Organic Fertilizer Report

Parameters	Analysis As Received	Dry Weight	Units	Nutrients Lbs./Ton As Received	Detection Limit
Total Nitrogen (N)	0.17	2.00	%	3.4	0.01
Ammonium Nitrogen (N)	n.d.	n.d.	%	n.d.	0.001
Nitrate Nitrogen (N)	n.d.	n.d.	%	n.d.	0.01
Organic Nitrogen (N)	0.17	2.00	%	3.4	Calculated
Phosphorus (P2O5)	n.d.	n.d.	%	n.d.	0.10
Potassium (K2O)	1.42	16.71	%	28.4	0.10
Sulfur (S)	0.11	1.29	%	2.2	0.05
Calcium (Ca)	0.03	0.35	%	0.6	0.01
Magnesium (Mg)	0.02	0.24	%	0.4	0.01
Sodium (Na)	0.37	4.35	%	7.4	0.01
Copper (Cu)	n.d.	n.d.	ppm	n.d.	20
Iron (Fe)	n.d.	n.d.	ppm	n.d.	50
Manganese (Mn)	n.d.	n.d.	ppm	n.d.	20
Zinc (Zn)	n.d.	n.d.	ppm	n.d.	20
Moisture	91.50		%		0.10
Total Solids	8.50		%	170	
Total Salts				36.8	
pH	9.80				
Total Carbon	2.88	33.88	%		0.050
C/N Ratio	16.9:1				
Chloride	0.26	3.06	%		0.02

n.d. = Not Detected

Matt Stukenholtz

Total salts should not exceed 500 lbs/acre.
Salt contributions from commercial fertilizer applications must also be considered.

Soil test

NUTRIENT ANALYSIS OF NEPTUNES HARVEST FISH/SEAWEED BLEND FERTILIZER

MIDWEST LABRATORIES INC.
13611 "B" Street, Omaha, Nebraska 68144-3693
402-334-7770
www.midwestlabs.com

Report Number 06-055-5172

Parameters	Analysis as Received	Nutrients Lbs/1000 Gallons	Est. First Year Availability Lbs/1000 Gallons
Ammonium Nitrogen (N)	0.07%	5.5	5
Organic Nitrogen (N)	1.53%	130.0	46
Total Nitrogen (N)	**1.60%**	**135.5**	**51**
Phosphorus (P_2O_5)	3.46%	292.7	205
Potassium (K_2O)	0.94%	79.6	72
Sulphur (S)	0.28%	23.3	9
Calcium (Ca)	0.54%	45.9	32
Magnesium (Mg)	0.04%	3.2	2
Sodium (Na)	0.25%	20.8	15
Copper (Cu)	1 ppm	0.01	0.01
Iron (Fe)	19 ppm	0.16	0.12
Manganese (Mn)	3 ppm	0.03	0.02
Zinc (Zn)	7 ppm	0.06	0.04
Moisture	77.4%		
Total Solids	22.6%	1909.7	
Total Salts		155.0	
pH	**3.6**		

First year availability of nitrogen is calculated based on preplant application with incorporation. Nitrogen available from previous years' application not considered.
Total manure salts should not exceed 500 lbs/acre. Less than 500 lbs/acre if annual rainfall is less than 25 inches and/or the soil CEC is less than 12 meq/100g. Salt contributions from commercial fertilizer applications must also be considered. Soil test yearly to monitor phosphorus levels, organic matter, pH and micronutrients. Spring soil test for residual nitrate --- make accurate sidedress recommendations! Nitrogen availability will vary with methods of application and field conditions. The nitrogen availability values used on a manure management plan must comply with regulations.

Neptune's Harvest Products and Benefits

Please Note:

> *All three of these fertilizers are OMRI certified and meet EcoCert requirements.*

Benefits of Fish 2-4-1

Neptune's Harvest is a fertilizer made from fresh North Atlantic fish. It is made by a unique cold process that protects the vitamins, amino acids, enzymes and growth hormones. It also contains all the micro and macro nutrients naturally found in fish. The nitrogen and other nutrients are chelated, so they are readily available for plant consumption. Unlike fish emulsions, Neptune's Harvest retains the fish proteins and oils and has no unpleasant odour. University studies have shown Neptune's Harvest to outperform chemical fertilizers.

Benefits of Seaweed 0-0-1

Neptune's Harvest Seaweed Plant Food is an organic storehouse of over 60 naturally-occurring major and minor nutrients and amino acids. Its growth-promoting substances (Auxims, Cytokinins, Gibberellins) enhance plant development, colour, and vigour. Seaweed has also been found to increase plant hardiness and resistance to adverse environmental conditions, such as early frost, extreme heat and lack of moisture. Used as a seed inoculant, seaweed fertilizer increases and accelerates germination, and enhances the rapid development of a healthy root system. Seaweed is an excellent addition to any fertilization program.

Benefits of Fish/Seaweed Blend 2-3-1

Neptune's Harvest Fish/Seaweed Blend Fertilizer gives you the best of both products with a perfect blend of fish hydrolysate and seaweed, ensuring a complete fertilization program. Growers using our fish/seaweed blend fertilizer on a regular basis have reported increased marketable yields and improved shelf life of fruits and vegetables. Fish and Seaweed are known to build the natural sugars in plants. Flowers and foliage will be stronger and more colourful. Blooms will be more plentiful, fragrant and longer lasting.
For greenhouse growers, gardeners and indoor plant growers, especially, the Fish/Seaweed Blend is highly recommended.

We feel our fertilizer is the best in the world

1. Neptune's Harvest contains much more than N-P-K. It also provides the Vitamins, Amino Acids, Enzymes and Growth Hormones necessary for optimum plant growth.
2. We have a unique cold process that protects the above-mentioned, leaving them undamaged by temperatures and readily available to plants.
3. The trace elements and minerals found in the macro-micro nutrients in the fish are all chelated, so they can be utilized by the plant, the day it is applied.
4. Unlike soluble or emulsions, **we remove no oil or meal from the fish**. This is what holds the fertilizer in the soil so that it is available to your plants.
5. Promotes the growth of beneficial bacteria, making the soil less compact and better able to drain.
6. Works as an outstanding compost enhancer, by building the micro-organisms. Experts have reported usable compost in half the time.
7. Will not burn plants or roots, if applied as directed; and it will not pollute the environment.
8. Studies have shown it to outperform chemical fertilizers.
9. Builds sugars in plants, which make plants healthier and less susceptible to fungus, disease and insect damage. This also makes fruit, vegetables and herbs taste better.
10. Blooms are more plentiful and longer lasting on flowering plants.
11. Farmers have reported little or no deer problems on crops sprayed with fish, where there was heavy damage in previous years.
12. Neptune's Harvest fertilizer is first filtered through a 165-mesh screen and then through a 150-micron screen before it is packaged.
13. We use only fresh fish, so there is no offensive odour.
14. Builds beneficial bacteria colonies in the soil, so it will draw nitrogen from the air, adding more nitrogen to the plants.
15. Results achieved on Hay and Pasture:
    - Higher yields.
    - More nutritional grass (i.e., higher protein, sugar, omega oils, vitamins and minerals)
    - Faster breakdown of manure (less flies, more dung beetles, more earthworms, more nitrogen in the soil)
    - Healthier soil (builds beneficial bacteria and gets soil microbes going)
    - Healthier animals.

Questions About Neptune's Harvest Fish Fertilizers

WHAT IS THE SHELF LIFE OF THESE FERTILIZERS?
The products have an indefinite shelf-life, until water is added**. DO NOT STORE DILUTED FERTILIZER**. The longer the product is stored, the better you'll have to shake it up.

HOW DO I STORE THESE FERTILIZERS?
Keep products in cool dry area. Do not let freeze if possible. It won't hurt the product, but could crack the bottle.

WHAT ARE THE INSTRUCTIONS FOR A LAWN APPLICATION?
We recommend 1 gallon of product per 8000 square feet, once per month. Mix product with a minimum of 20 gallons of water per gallon of Fertilizer. If you are using a Chapin-Sprayer, it holds 1 quart so will do 2000 square feet. The 4 oz. setting on the top of the dial works great. Eyeball 2000 square feet and begin spraying walking backwards in a fanning motion. When the sprayer is empty, you should have covered 2000 square feet.

HOW DO I OPEN A FIVE-GALLON PAIL?
Find the spigot on the top of the pail. Pop off the white cap, and you will see a pull tab. Pulling firmly on the collar should "pop" it out creating a spout. Once the required amount is dispensed, you may collapse the spout again, if desired, and securely fasten the cap.

HOW DO I STIR A FIVE-GALLON PAIL?
All of our liquid fertilizers should be mixed well before dilution. A 5-gallon pail can be heavy and awkward to handle. Instead of attempting to lift or shake your bucket, just find a soft surface (not pavement) to roll/flip it around as best you can. If you find the technique described above as too cumbersome still, try using an old broom stick to stir things up until he weight becomes more manageable.
ALWAYS USE CAUTION WHEN MIXING YOUR PAIL, ENSURE THE LID IS SECURELY FASTENED BEFORE YOU BEGIN. IF STIRRING, USE A CLEAN OBJECT TO AVOID UNDESIRED CONTAMINATION OF THE REMAINING PRODUCT.

WHAT IS THE PERCENTAGE OF FISH IN THE HYDROLYZED FISH FERTILIZER? 100%

WHAT IS THE PERCENTAGE OF SEAWEED EXTRACT IN THE SEAWEED FERTILIZER?
The Seaweed Fertilizer has 27.5 lbs. of Seaweed Extract per 55-Gallon Drum of Seaweed.

WHAT IS THE PERCENTAGE OF FISH AND SEAWEED IN THE FISH/SEAWEED BLEND?
75% Fish and 25% Seaweed (The seaweed portion is made from 12% extract solution).

Mixing and Usage Requirements for Neptune's Harvest Fertilizers

Products must be stirred well -
Because of the oils in the fish, it will separate, so stirring well is very important.

You should stir drums, or bulk totes with a long clean pole or stick (broom handles for drums and wooden planks for totes work well). For best results, stir 100 revolutions one way, and then 50 revolutions the other way. Air compressors with a hose going to the bottom, will help mix it up while you are stirring. You can also pump from one hole back in to the other and circulate the product that way.

Pumps, Spray Equipment and/or Drip Lines must be cleaned out after every use -
To assure your equipment works its best and lasts as long as possible, it is extremely important to flush your equipment with clean water after using our products, as well as, to prevent any clogging and corrosion issues due to oil buildup.

Do not store diluted -
Once you have mixed our products with water, they must be used up on the same day. We bring our Fish products down to a pH of 3.5 in order to keep them from rotting. Once water is added, the pH goes up so the plant can accept it. If you do store it diluted, it will still work, BUT will smell pretty bad.

Mix with enough water before spraying -
Each gallon of Fish or Fish/Seaweed should be mixed *with a minimum of 10 gallons of water.* You can add more water, but do not add less unless you find a way to raise the pH. Our Seaweed Extract is a good way to do that. If you cannot add 10 gallons of water, per gallon of Fish, you can add Seaweed Extract into the tank until you reach your desired pH level. A pH meter is recommended when in doubt.

If mixing with other inputs -
If you are mixing the Fish with other inputs, always add the ***Fish*** to the tank ***LAST.*** In almost all cases, you can cut back on the other inputs by 25% when spraying with the Fish, because the Fish is a natural spreader/sticker, and is systemic, which means it will help take the other inputs into the plant, and down to the root system.

How to Start Seeds and Transplanting with Neptune's Harvest Fish/Seaweed Blend

Soak seeds in a solution of 1 tablespoon of Neptune's Harvest Fertilizer per quart of water, until they begin to swell. The bigger the seed, the longer this is. Beans may take overnight. Once you plant the seeds, water with the solution you've soaked them in. This can get a little smelly, so if you have a basement, or side room, that is not use much that would be the best. It's really not THAT bad, and goes away quickly.

After that, water with ½ oz. (1 tablespoon) per gallon of water, once a week. Once the 1st primary leaves are out, and the plants are 4 to 6 inches tall, increase to 1 oz. per gallon of water, once a week.

Upon transplanting, pre-soak the new location by using 1 ounce of Neptune's Harvest per gallon of water poured right into the hole, then put the transplant in quickly, before all the water is absorbed by the soil. This allows the nutrients to go right into the root ball and surrounding soil. The plant will be off to a great start and you will prevent transplant shock. Water as needed thereafter.

After planting, you can begin foliar feeding using the same 1 ounce per gallon of water dilution rate. You may continue fertilizing as often as once a week, but in most cases every 2 to 3 weeks is adequate.

HOUSE PLANTS: Use one tablespoon of fish or fish/seaweed blend to one gallon of water every two to three weeks. If using a drip dish, water lightly or pour out and rinse drip dish so that the diluted fertilizer does not remain in the drip dish.

OUTDOOR PLANTS: Use one tablespoon of fish or fish/seaweed blend to one gallon of water. Feed vegetables, flowers, shrubs, and trees every two to three weeks or; if you have the time, use one-half tablespoon of fish or fish/seaweed blend to one gallon of water once a week. It is best to fertilize more often with less, than less often with more. For best results, fertilize early in the morning or after the sun goes down.
Apply the hydrolyzed fish fertilizer mix to soil and plant.
Apply the fish/seaweed blend fertilizer mix to soil or as a foliar feed until leaves are wet, top and underside. Do not spray onto buds of flowers, especially when they are beginning to blossom.

ALWAYS SHAKE WELL AND MIX WELL BEFORE USING NEPTUNE'S HARVEST FISH FERTILIZERS. **APPLY NO LESS THAN 10 GALLONS OF WATER TO ONE GALLON FISH FERTILIZER.**

Application Rates for Vegetable Crops and Sweet Corn

HOW OFTEN AND WHEN TO APPLY FISH OR FISH/SEAWEED BLEND:

For vegetable crops and sweet corn, we recommend you apply 3 gallons of fertilizer X 30 gallons of water per acre 4 times a year.

1st Application: At planting. Broadcast or drip furrow.
2nd Application: Foliar spray when 1st primary leaves come out on vegetables, or on corn when plants are 8 to 10 inches tall.
3rd Application: Pre-blossom or with corn, pre-tassel.
4th Application: Pre-harvest.
Never waste a trip; if you are going to the field to spray anything, add some fish to your mix. The fish will enable your inputs to stay in the soil longer and could allow you to cut your Application rates.

REMEMBER, IT IS BETTER TO FERTILIZE MORE OFTEN WITH LESS, THAN LESS OFTEN WITH MORE.

APPLICATION RATES FOR FIELD CROPS (INCLUDING POTATOES) - 3 OPTIONS
On field crops, we recommend you put 2 gallons per acre three or four times a year. If, because of constraints with your equipment or you are unable to get on to the fields four times, then put 4 to 6 gallons when you are able.

OPTION 1:
1ST Application: At planting.
2nd Application: When grain are 4 to 5 inches tall; corn 8 to 10 inches tall and beans have first true leaves.
3rd Application: Pre-boot, pre-tassel or pre-blossom.
4th Application: Pre-harvest.

OPTION 2:
1ST Application: 2 gallons per acre, at planting, or when crop comes out of dormancy.
2nd Application: 2 gallons per acre; after cutting, or if grazed, after you rotate. **3rd Application:** 2 gallons per acre; same as above.

OPTION 3:
1ST Application: 3 gallons per acre, at planting, or when crop comes out of dormancy.
2nd Application: 3 gallons per acre; last time you are able to get on to the field.

NOTE: Each gallon of fish should be mixed with at least 10 gallons of water.

Using Neptune's Harvest Fish Fertilizer or Fish and Seaweed Fertilizer on Hay and Pasture

Pasture Application Rates:

For optimal results, we recommend spraying:

- 2-3 gallons per acre as soon as you can get out on field
- For the first two applications, it would be best to apply 3 gallons X 30 gallons of water per acre. This could also depend on the quality of your soil.

(Note: After the initial two applications, you could cut back to 2 gallons X 20 gallons of water to maintain)

- Recommended fertilizing is every 21 days or when the grass/hay has been grazed down and/or when the animals are rotated.

Note: Minimum applications for pasture - every four to six weeks still shows good results with 3 gallons per acre

****

Hay Application Rates:

For optimal results, we recommend spraying:

- Two Gallons X 20 gallons water per acre - when hay first comes out of dormancy
- Another 2 gallons (X 20 gallons water) 2 weeks prior to cutting - if possible
- Spray 2 gallons (X 20 gallons water) a few days after each cutting - when the hay gets up to about 2 to 4 inches high and then apply 2 gallons after every cut thereafter, and 2 gallons two weeks prior to cutting., This 2nd application, before cutting will really increase your RFV (relative feed value) and make the hay very nutrient dense. **Animals will eat about ½ the hay when fed with the Fish Fertilized hay, compared to Chemical Fertilizer or no Fertilizer.**

NOTE; For best results, try using higher amounts of fish on poor soil in the beginning, to help the overall health of the hay/pasture. This method will also help you achieve maximum results.

Important Information: Always add a Minimum of 10 gallons of water to one gallon of fish fertilizer.

Results Achieved When Applying Neptune's Harvest to Hay and Pasture

- Higher yields
- **More nutritional grass** (i.e. higher protein, sugar, omega oils, vitamins and minerals)
- Helps break down manure faster (**less** flies, **more** dung beetles, earthworms and nitrogen in the soil)
- Healthier soil (builds beneficial bacteria, and gets soil microbes going).
- Healthier animals
- Fish & Seaweed contains macro and micronutrients, amino acids, vitamins, trace elements, trace minerals, enzymes, naturally occurring growth promoters, and omega oils.
- Cattle, horses and goats love fields fertilized with Fish.
- The Fertilizer has an indefinite shelf life, until you add water.

Once it has been diluted, you must use it up.

- We filter the fish through a 150-micron screen for easy application through any type of sprayer.
- The product must be stirred well before pumping out what you need.

The pump and sprayer should be flushed with clear water, after each use.

Benefits of Fall Applications of Neptune's Harvest Fish and Fish/Seaweed Blend Fertilizers

* The Blend is an excellent root stimulator.
* It is great for planting or trans-planting anything.
* Helps establish a strong root in order to survive the winter cold.
* Residue spray --- helps build organic matter in what is left on fields after season is over.
* Allows the roots to store nutrients and gives your plants a great boost for the following season.
* Produces beautiful, vibrant and plentiful blooms.
* If you choose to mix other products with it (fungicide, repellent, etc.), you can count on using 25% less of almost anything you add because the fish is a natural spreader/sticker which will help other products work so much better. This will actually save you money.

Application Rates for Strawberry Plants

It is recommended that you apply 2 gallons per acre 3 or 4 times per year - Foliar spray if you can.
The best time to fertilize would be either early morning (especially if you can get out while there is morning dew), or later in the evening (once the sun goes down)
- -- the reason being is that the stamen/pores (which are on the underside of the leaf) will open up more at those times of the day making it more likely for the plant to absorb the nutrients. They will actually close during the "heat" of the day to protect the moisture.

1st Application: At planting or when crop comes out of dormancy.

2nd Application: When plants are 8 to 10 inches tall.

3rd Application: Pre-blossom.

4th Application: Pre-harvest.

Note: Each gallon of fish fertilizer should be mixed with at least 10 gallons of water.

Results Achieved include:

- Higher yields
- Larger strawberries
- Increased brix (sugar content) = greater value, flavour, and resistance to insect damage and disease.
- Increased nutritional value of fruit and longer shelf-life
- Increased overall health of strawberry plant.

Application Rates for Tomato Plants

Apply one ounce of Fish or Fish/Seaweed Fertilizer per 1 Gallon of water every two to three weeks to the soil, but also as a foliar application. It is good to get the underside of the leaves as well as the top of the leaves.

Application Rates of Fish and Fish/Seaweed Blend for Fruit Trees, Cranberries, Blueberries

It is recommended you apply 3 gallons per acre 4 times a year, minimum. If you are able to spray more often, with less, you will see even greater results. (e.g. 2 gal/acre 6x/year.

1st Application: Foliar spray when trees start to come out of dormancy, or start a new cycle.

2nd Application: Foliar spray when 1st primary leaves come out, or if tree doesn't lose leaves, you should spray ½ way in-between 1st and 3rd applications.

3rd Application: Foliar spray pre-blossom.

4th Application: Foliar spray pre-harvest. Never waste a trip; if you are going to the field to spray anything, add some fish to your mix. Fish will act like a sticker/spreader, and is also systemic. The Fish will enable your other inputs to stay in the soil, and on/in the tree longer, and should allow you to cut your application rates on these other inputs by 25%.

- ✓ **Each gallon of fish must be mixed with <u>at least</u> 10 gallons of water.**
- ✓ **Stir the Fish thoroughly before each use.**
- ✓ **Always run clear water through your sprayer after each application, to flush out the lines.**
- ✓ **Do not store diluted Fertilizer.**

Results Achieved include:

- **Higher yields**
- **Larger fruit**
- **Increased brix (sugar content) = greater value, flavour, and resistance to insect damage and disease**
- **Increased nutritional value of fruit and longer shelf-life**
- **Increased overall health of tree or bush.**

Application Rates of Fish and Fish/Seaweed Blend for Haskap/Honeyberry

It is recommended you apply 3 gallons per acre 4 times a year, minimum. If you are able to spray more often, with less, you will see even greater results. (e.g. 2 gal/acre 6x/year.

1st Application: Foliar spray when bushes start to come out of dormancy (ie. when they start showing bud activity first thing in the spring).

2nd Application: Foliar spray right after the full bloom. If possible spray again in 3 weeks' time.

3rd Application: Foliar spray after harvest.

4th Application: Late fall.

Hydroponics Growing

When using Neptune's Harvest Hydrolyzed Fish or Fish/Seaweed Blend in a Hydroponics System, there are a few things to consider:

- The Fish and the Blend are stabilized with Phosphoric Acid to bring the pH down to 3.5.
- This process keeps the Fish from rotting and stinking. Once you add water to the Fish, the pH goes up and it is no longer stable. Because of this, it must be used sparingly in a Hydroponics System or it will start to smell like rotting fish.
- The following are recommended usage rates that we got from a grower with a Hydroponics System, who grows Wheat Grass, Herbs and Flowers.
- This grower uses 80 ml. Fish or Fish/Seaweed Blend per 75 gallons of water. (1 tsp. = 15 ml.)

Because he uses such a low amount, there is no odour. Also, he is feeding constantly, so he is giving the plants plenty of nutrients to grow.

Another grower, growing medical marijuana found better results when he upped the rate to 5ml/gallon of water, and fed once a week. This crop needed more, so you can see it is best to play with the rates somewhat, to see what works best for what you're growing.

Both growers do not use any other fertilizers, and see excellent results. They are paying 1/3 less for these products, than their previous fertilizer, and it "works better"!

FOR USE WITH A DOSATRON (SYPHENED SYSTEM)

- If you can set the system to draw out at a 16 - 1, then a dilution rate of 2 cups per gallon can be added.
- If the system will only allow it to draw out at a 100 - 1, then a dilution rate of 1 ounce per gallon can be added. (For a more accurate setting and if equipment allows, it could also be set at a 128 to 1 which would be for 1 ounce per gallon).
- This information will be updated when additional info becomes available.
- Any feedback would be much appreciated.