

## **JOHN'S CORNER**

### **ORGANIC FERTILIZERS AND NUTRIENTS - 30:**

#### **SEABIRD GUANO**

*by John Ferguson*

One of the first fertilizers ever used was guano from seabirds. In many areas of the world there are islands or other nesting sites where seabirds live and deposit their droppings. In some area these droppings accumulated over the decades and were over 150 feet deep when they stated being harvested.

The Inca Indians were one of the first to use this guano as a fertilizer and it supported their civilization for hundreds of years. It was so important to their culture they would kill anyone whom hurt or disturbed the birds. Later after Europeans colonized the area the manure was harvested and shipped all over the world.

Seabird guano is found at many locations around the world. However some of the best seabird guano comes from the Pacific ocean off the coast of Peru and Chile where upwelling of nutrient rich water provides nourishment for a large variety of marine life which then feed huge colonies of the seabirds. On the west coast of South America and many of the nearby islands there is a desert climate which allows the guano to accumulate and not be washed away by rainfall.

Seawater has 90 elements dissolved in it, hence when birds eat marine life they obtain all these major, minor and trace elements which are also in their manure. Typically this manure ranges from a 10-10-1 to a 13-12-2 (NPK) fertilizer depending on source. Additionally it has all the minor nutrients like iron, calcium, magnesium, etc. and all the trace elements as well. Nutritionally it is one of the most complete fertilizers available (organic or artificial).

One can sometimes collect this manure along the Gulf coast. Often seabirds will roost on a certain spot and the manure will accumulate around it during the dry days of summer (no rain). Gardeners can scrape this manure up and use it. Not as pretty as the pelletized or granulated bagged products we purchase but just as effective and it is free.



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Typical usage is two pounds per 100 square feet or one teaspoon per 8 inch diameter pot. Mix into the soil and water well to release the nutrients.

Many gardeners like to make a tea for deep root feeding. To do this mix one cup of guano into one gallon of water and stir (or 5 cups in a 5 gallon bucket). Let it sit for 24 hours and then strain out residual solids (filter through a fine mesh screen, old cloth, etc.) and then use the liquid. One or two cups per plant is a common application rate using more for large plants and less for small ones. The left over solids can be used in the garden or compost pile.

**SUMMARY:**

Seabird guano is an excellent natural organic fertilizer and the most complete fertilizer available. It is a sustainable and renewable resource that is now managed to protect both the birds and the environment.

**PROS:**

- good source of a nitrogen, phosphorous, and potassium
- good source minor and trace elements
- nutrients become available when exposed to moisture
- stimulates beneficial microbial life in the soil
- renewable resource
- many brands available
- when used in a compost pile it speeds up the process and increases the nutrient density of the compost

**CONS:**

- may cost more than alternatives
- high transportation costs
- may be dusty
- may burn plants if too much is applied
- limited availability
- may have a little odor.