



# Phosphorus *minifacts*

# #10

FROM NUTRA-FLO®

## PHOSPHATE FACTS FOR LIVESTOCK & POULTRY GROWERS

### Did you know?

All commercial calcium phosphate feeds are a mixture of monocalcium phosphate monohydrate (MCP) and dicalcium phosphate anhydrous (DCP). Because commercial plants have different manufacturing processes and different raw materials, the end products contain different percentages of these two phosphate compounds.

### Why are feed phosphates different?

Almost all calcium phosphates (except defluorinated phosphates rock products) are made by reacting calcium carbonate with phosphoric acid.

Chemists tell it this way:



Different ratios of MCP and DCP are produced in the end product according to a variety of conditions. Among these conditions are: reaction temperature, product purity, and the proportions of acid and calcium carbonate.

Our new Ultra-Phos process manufactures a finished product with a very high ratio of MCP to DCP. Our process is constantly monitored so that we can supply a finished product that can run as high as 85% MCP and only 15% DCP. It's a fact that Ultra Phos contains up to twice as much MCP as other plants!

### So what?

It is important that poultry and livestock growers realize that MCP (monocalcium phosphate) is much more available to turkeys (that is, absorption of phosphorus is higher with MCP) than is DCP (calcium phosphate). This means smaller amounts of MCP can build stronger bones, increase general health, increase feed efficiency and reduce mortality when compared with DCP. It is important that the grower purchase a product that is highest in MCP.

### Where's the proof?

In university trials it is well known that the higher the phosphorus in leg bones, the stronger the bones. The amount of phosphorus in the leg bone also indicates the bioavailability of the different phosphates. Figure 1 shows that the product higher in MCP produced higher phosphorus content in the bones plus higher bone strength.

### The bottom line:

The turkey grower can use less of the product with higher MCP or he can use the same and still be assured of higher absorption of phosphorus thus enjoy the benefits of stronger bones, higher feed efficiency and better gains. In these trials, just 30lbs of MCP resulted in same bone strength as 50lbs of DCP. That's right, you could use 40% less product and get the same results as DCP!

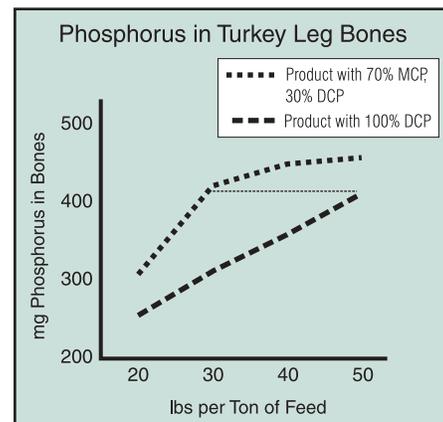


Figure 1. Phosphorus in turkey leg bones

### Where do you buy the product with higher MCP?

Nutra Flo, of course. Our unique process produces a calcium phosphate product that has 28% more MCP in 18½ grades and 20% more MCP in 21 grades than the average of three U.S. producers!