
Dairy Policy Brief #7: Milk Protein Concentrate Imports

What is Milk Protein Concentrate?

Milk Protein Concentrate (MPC) is a non-fat, high-protein milk powder that is made by ultrafiltration and drying of skim milk. It has similar uses to nonfat dry milk (NDM), which is typically produced by spray-drying skim milk, but has a higher protein content—40 to 90 percent compared to 34 to 36 percent for NDM. Because of its higher protein and correspondingly lower lactose relative to NDM, the use of MPC to “standardize” cheese milk (optimize the fat-to-casein ratio) enhances both the economics and the technical efficiency of cheesemaking. MPC can only be used in making cheeses and cheese foods that do not have a U.S. Food and Drug Administration (FDA) standard of identity. But MPC is also an ingredient in a wide array of other food products such as frozen deserts, bakery and confectionery products, sports and nutrition drinks and bars (energy bars), and nutrition supplements.

Until recently, there was no MPC produced in the United States, and there is only a token tariff (0.17 cents per pound) on imported MPC. Consequently, as the demand for MPC has increased because of its functionality and low price per unit of protein relative to NDM, U.S. imports have soared. The U.S. imported less than 10 million pounds of MPC in the early 1990’s. Imports in 2005 were 172 million pounds valued at \$223 million, comprising nearly 10 percent of the total value of U.S. dairy imports.

To the extent that they substitute for each other, imported MPC has caused displacement of domestically-produced NDM. This has provoked calls by dairy producer groups to limit MPC imports. Bills have been introduced in the last two Congressional sessions to impose tariff rate quotas on MPC and casein imports. The current Senate and House bills are S. 1417 and H.R. 521, both titled the *Milk Import Tariff Equity Act*.

What are the Issues?

- ***Why isn’t more MPC made in the United States?*** MPC imports are partly due to the lack of economic incentives to produce it domestically. Put simply, the MPSP sets an intervention price for NDM that makes it more profitable to manufacture NDM than MPC.
- ***How much NDM does MPC displace and how are producer prices affected?*** Displacement of NDM by MPC is hard to measure because of the lack of hard evidence on substitutability in many applications, especially newer products that have always used MPC. UW research estimated that the maximum displacement ranged from 80 to 430 million pounds of NDM annually between 1997 and 2002. Government purchases of NDM exceeded its estimated displacement by MPC in each of these years. In other words, the government would have purchased NDM under the MPSP even if there had been no MPC imports. Consequently, the producer price effect was minimal. Record U.S. exports of NDM in response to strong world market prices in 2004 and 2005 resulted in no government purchases, and expanded MPC imports were used to supplement NDM supplies.
- ***What are the consequences of imposing tariff rate quotas on MPC imports?*** Under WTO rules, the U.S. has limited flexibility in applying new tariffs and must compensate countries that would be penalized by expanding tariffs beyond what were agreed to under the Uruguay round. The nature of compensation is subject to negotiation. It could be a cash settlement for lost exports. More likely, it would involve raising tariff-rate quotas or lowering the over-quota tariff on other dairy products the country exported to the U.S. This would probably be cheese, which is a major export item for most countries that export MPC to the U.S.