

to identify more precisely the source of all the food products.

Most agricultural crops are traded as bulk commodities; bulk trading operates on the premise that crops produced by different farmers are sufficiently similar to be traded at a common price and with a common grading specification. For various reasons, some firms have put in place identity preservation systems, which they use to track individual lots of products throughout production and distribution. These identity preservation systems exist for organic products, kosher products, and some specialty versions of bulk products. FDA estimated the potential impact of this option by reviewing studies of current identity preservation systems. We assume that the identity preservation systems put in place for specialty versions of traditionally commingled products closely resembles what would be required to comply with the input-to-output requirement of this option. The study we rely on for our estimates (Ref. 17) is for corn and soybeans, the largest crops by value in the United States, but the issues should be similar for other types of bulk products.

The cost of identity preservation consists of: (1) The cost of segregating crops to prevent commingling, and (2) the cost of tracking ingredients. First, commodity suppliers should incur an increase in cost due to their inability to mix commodities in bulk. The Bender et

al (Ref. 16) study estimates costs based on responses to a small survey of specialty elevators, grain firms, seed companies, and brokers. On average, 35 percent of the volume handled by these firms is specialty product, so they have ample experience in identifying cost differences, including storage, handling and segregation, risk management, transportation, analysis and testing, and marketing costs. Of the 84 survey responses, 55 estimated the cost of segregating and handling specialty crops. FDA used the overall average across facility types to estimate an average cost premium to be applied to each preprocessed commodity: \$0.17 per bushel for corn and \$0.48 per bushel for soybeans. The original estimate included a premium paid to farmers, but we subtracted this amount out of the total. Since option 13 would only require the identification of a particular immediate previous source, in this case a farm, we assume no new farming activity would have to take place. At an average price of \$1.81 per bushel for corn and \$4.60 per bushel for soybeans in 1999 (Ref. 18), the premium estimated for corn is 9.4 percent and for soybeans is 10.4 percent. Due to the small sample, standard errors were not reported in this study, but considerable nonquantified uncertainty exists around these estimates. These estimates may be an overestimate of premiums if economies of scale are possible in

identity preservation systems. These estimates may be an underestimate if the reason these specialty product systems exist is that it is easier to preserve identities for corn and soybeans than for other products.

Table 26 of this document presents the calculations of the cost based on these segregation premiums. We apply the premium to the 1999 farm value of commodities, not to the retail values as retail prices include many other aspects of branding and bringing the product to market. These are also the latest data available, and since agricultural prices have been fairly stable, we do not adjust these dollar amounts to 2002. The estimated corn premium from the studies is used for all other bulk grain products, and the estimated soybean premium is also used for nuts, sugarcane and beets, sunflowers, and flaxseeds. Milk is assumed to have a lower cost increase; most milk production is local and already includes a tracking system to allow for the use of expiration dates for the final product. Vegetables destined for final consumption in an unaltered state, vegetables used for production, and eggs are also assumed to have a lower cost of tracking since current commingling practices for these products are limited. The table includes nuts, but we were unable to find a satisfactory price estimate. FDA requests comments on these assumptions.

TABLE 26.—COMMINGLING COSTS BASED ON SPECIALTY PREMIUMS, OPTION 13

Food Type	Count	Unit	\$ Farm gate	Premium %	Premium \$
Corn (for grain)	9,430,612,000	bushels	\$17,103,991,000	9.4%	\$1,603,204,000
Soybeans	2,653,758,000	bushels	\$12,205,352,000	10.4%	\$1,273,804,000
Milk	162,716,000,000	pounds	\$23,400,050,000	5.0%	\$1,170,003,000
Wheat	2,299,010,000	bushels	\$5,593,989,000	9.4%	\$524,340,000
Fruits	31,152,000	tons	\$9,345,600,000	5.0%	\$467,280,000
Fresh Vegetables	22,484,150	tons	\$7,610,780,000	5.0%	\$380,539,000
Eggs	82,715,000,000	eggs	\$4,321,859,000	5.0%	\$216,093,000
Sugar beets	33,420,000	tons	\$1,242,898,000	10.4%	\$129,714,000
Rice	20,602,700,000	pounds	\$1,231,207,000	9.4%	\$115,404,000
Peanuts	3,829,490,000	pounds	\$971,608,000	10.4%	\$101,401,000
Sugarcane	35,299,000	tons	\$941,791,000	10.4%	\$98,290,000
Sorghum	595,166,000	bushels	\$937,406,000	9.4%	\$87,866,000
Prod. Vegetables	15,476,230	tons	\$1,660,051,000	5.0%	\$83,003,000
Barley	280,292,000	bushels	\$597,038,000	9.4%	\$55,962,000
Sunflower	4,341,862,000	pounds	\$339,993,000	10.4%	\$35,483,000