

(Ref. 5). To obtain an estimate of the upper range on implementation costs for lamb producers, USDA assumed that cost impacts on a per-unit basis would fall between costs facing beef producers and pork producers. Lamb production is similar to beef production in several ways. Both sheep and cattle are ruminants, with breeding stock and young animals typically raised on open pasture and rangelands, and slaughter animals typically finished on grain-based diets in confined feeding operations. Cows normally produce one calf, while sheep normally produce one or two lambs. In other respects, lamb production is similar to pork production. These two industries have similar numbers of producers—about 64,000 sheep and lamb producers versus 67,000 hog and pig producers (Table 1). Slaughter animals of both species are marketed at about the same age, about 6 months. Because both lambs and pigs are slaughtered at a relatively young age, the animals typically do not change ownership several times, as is most often the case with cattle. USDA believes that per-head costs for lamb producers will be considerably less than for beef producers but higher than for pork producers. USDA assumes that upper range costs per head for lamb producers will be \$4.50 per head, which is three times the per-head costs assumed for pork producers and less than half the costs assumed for beef producers. Total upper range costs for lamb producers are estimated at \$15 million.

USDA assumes that intermediaries in the lamb sector will face per-pound costs similar to costs faced by beef and pork sector intermediaries, which are estimated at \$0.02 per pound. Total costs for lamb sector intermediaries are thus estimated at \$7 million.

USDA believes that costs to retailers for lamb will be similar to costs borne for pork, which was estimated at \$0.07 per pound. Total upper range costs for retailers of lamb are estimated at \$9 million.

Summing the upper range estimates for producers, intermediaries, and retailers results in estimated upper range costs of \$32 million for the lamb industry.

Regarding potential cost impacts of mandatory COOL on the fish and seafood sector, Sparks/CBW conducted the only quantitative assessment identified by USDA. Sparks/CBW estimates negligible costs for producers, \$0.005 per pound for processors and wholesalers, and \$0.05 to \$0.07 per pound for retailers.

USDA believes that costs to fish and seafood producers will be higher than

projected by Sparks/CBW, which estimates total costs of \$1 million. For wild-caught fish, producers will need to maintain and transfer records on where fish are harvested and also transfer information on whether the vessel is U.S. flagged. Fish farming operations will need to maintain and transfer information regarding the location of production and of the origin of fish into the operation. USDA expects that fish and seafood producers will incur about half of the cost faced by processors and wholesalers. Producers will need to provide information on the products they sell while processors and wholesalers will need to track information on products that they both purchase and sell. Sparks/CBW estimates costs at \$0.005 per pound for fish and seafood processors and wholesalers, so half of this amount is \$0.0025 per pound. Total upper range costs for fish and seafood producers are thus estimated at \$19 million.

USDA adopts \$0.005 per pound as an upper range estimate of costs for intermediaries in the fish and seafood sector, which is the Sparks/CBW estimate for processors and wholesalers. Processors will need to collect country of origin information from producers, maintain this information, and supply this information to other intermediaries or directly to retailers. In addition, there may need to be segregation of the product before and after processing to facilitate tracking of country of origin identity. There will also be labeling costs associated with providing country of origin information on consumer-ready packs of frozen and fresh fish that are labeled by processors. Total upper range costs for fish and seafood intermediaries are thus estimated at \$21 million.

At the retail level, Sparks/CBW estimates costs of \$0.05 to \$0.07 per pound for fish and seafood. USDA adopts the higher end of this range as an upper range estimate of costs for retailers of fish and seafood. The upper range estimate of \$0.07 per pound is consistent with the costs estimated for pork and lamb at retail, and results in total upper range costs of \$159 million for retailers of fish and seafood.

Total upper range costs for fish and seafood are estimated at \$118 million.

As with fish and seafood, Sparks/CBW is the only quantitative study of the costs of mandatory COOL for perishable agricultural commodities of which USDA is aware. Sparks estimates total costs of \$20 million for fruit and vegetable producers, \$34 million for processors and wholesalers, and \$1.5 billion to \$3 billion for retailers.

USDA agrees with Sparks/CBW that costs of mandatory COOL for fruit and vegetable producers will be relatively small, but believes that the Sparks/CBW estimate is too low. Although producers maintain many of the types of records that will be required to substantiate U.S. origin claims, USDA believes that this information is not universally transferred by producers to purchasers of their products. Producers will have to supply this type of information in a format that allows handlers and processors to maintain country of origin information so that it can be accurately transferred to retailers. USDA estimates upper range costs of \$0.00025 per pound for producers for fruits and vegetables to make and substantiate COOL claims, which equates to \$0.01 for a 40 pound container. Total upper range costs for fruit and vegetable producers are estimated at \$35 million.

As with fruit and vegetable producers, Sparks/CBW estimates relatively small costs for processors and wholesalers. USDA believes that fresh and frozen fruit and vegetable intermediaries will incur higher costs than those estimated by Sparks/CBW to implement the proposed rule. USDA believes that fruit and vegetable intermediaries will shoulder a sizeable portion of the burden of tracking and substantiating country of origin information. Intermediaries will need to obtain information to substantiate COOL claims by producers and suppliers; maintain COOL identity throughout handling, processing, and distribution; and supply retailer with COOL information through product labels and records. USDA estimates that the cost of these activities will be \$0.005 per pound for fruit and vegetable sector intermediaries, resulting in total estimated costs of \$580 million.

Sparks/CBW estimates costs of \$0.03 to \$0.06 per pound for retailers of fresh and frozen fruits and vegetables. USDA believes that costs at retail will be lower than estimated by Sparks/CBW. The Sparks/CBW study reflects information that was available subsequent to the release of the voluntary COOL guidelines, which included mixed products as covered commodities required to be labeled. Mixed products comprised of two or more covered commodities are defined as processed items in this proposed rule, and thus do not require country of origin labels. Based on comments received by USDA, costs for providing country of origin information for mixed products would be high. Examples of mixed products prepared at retail stores include mixed fruit cups, vegetable trays, and salads. Because these mixed products will not