A MODEL OF WEEKLY PRICE DISCOVERY FOR FLORIDA CELERY: REPLY

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Nelson Updaw raises several issues concerning our study of weekly price discovery for Florida celery. His comments require some clarification and correction so that his criticisms can be allayed.

First, there appears to be some confusion surrounding the intraseasonal (semiweekly) operation of the Florida Celery Exchange and interseasonal acreage allotments. During the time period of our analysis (the 1972-1977 seasons) no marketing allotments were imposed by the Exchange as Updaw suggests; rather, the Exchange practiced only semiweekly price-setting activities, and acreage allotments were applicable on an annual basis only.

Second, evidence concerning the price elasticity of demand is not the main argument leading to the conclusion that the Florida celery market approximates the results obtained under competitive conditions as implied by Updaw. Although this finding does constitute additional evidence supporting our contention, our primary argument that the Florida price is near competitive levels is based on similarities between the restricted (derived) and unrestricted reduced form equations for the Florida price variable. The simultaneous equation model's reduced form explicitly treats price as endogenously determined by the interaction of supply and demand as in a competitive market. In a noncompetitive market, where supply is not a meaningful concept, there exists a price-setting rule or equation which can be estimated in a manner similar to the unrestricted reduced form. Thus, the correspondence between the two reduced form equations suggests little divergence from the competitive model.

Third, Updaw objects to our choice of the length of observation. In this regard, he neglects the critical consideration that celery is a perishable product. Given that the individual firm faces a perfectly elastic demand curve at a price set by the Exchange, some celery will be supplied as long as this price exceeds harvesting and marketing costs. In this case, we are definitely concerned with demand elasticities for periods of one to two weeks' duration rather than long-run elasticities (Garber and Klepper).

With respect to specifying the weekly demand equation, most of the potential demand shifters are not available on a weekly basis. Because the series analyzed in our article corresponds to 12 calendar quarters over a six-year period, it is highly unlikely that the variation in the "traditional demand shifters" would be great enough to warrant their incorporation in our model. We do agree with Updaw, however, that some measure of transport/marketing costs should be investigated. Such a measure is not available to us at this time.

In addition, Updaw is incorrect when he argues that any intercorrelation between lagged California celery prices and quantities introduces bias to the estimated price coefficient. Though it is true that a more traditional specification would incorporate only the California price variable, the inclusion of lagged California supply in the derived demand equation is justified on the basis that it represents market share and may indicate the buying patterns of middlemen.

Finally, we take issue with Updaw's contention that stable prices are inconsistent with competitive levels. That contention is not supported by the econometric literature. The excellent discussion by Wu, for example, suggests that in a dynamic stochastic framework, price setters may not restrict output below competitive levels while at the same time attempting to set prices *ex ante*. Specifically, Wu (p. 70) shows that in situations of uncertainty, stable prices do not necessarily lead to a misallocation of resources. We believe that our results suport this conclusion.

REFERENCES

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