OSBORNE INDUSTRIES INC.
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August 20, 1998 FOR IMMEDIATE RELEASE

NEWS RELEASE

Company Awarded Small Business Innovative Research Grant

Osborne Industries, Inc., Osborne, Kans. was recently awarded a Phase II Small Business Innovative Research (SBIR) grant. The award was recently announced by Dr. Charles F. Cleland, the Director of SBIR programs for the USDA Cooperative State Research, Education, and Extension Service. The Phase II SBIR grant provides financial assistance for the commercial development of a novel method for automatically weighing pigs. These new methods also have potential application to other animals.

The grant, valued at $220,000, enables the company to convert the concept to a commercially valuable product with benefit to livestock producers. Research on the concept was initiated with SBIR assistance in 1996 through an earlier SBIR Phase I grant. The Phase I work demonstrated the feasibility of the automatic weighing concept and established key system requirements for practical automatic weighing equipment.

Dr. Rod Korthals, an agricultural engineer specializing in biometrics at Osborne Industries, is the project scientist leading this research. The evaluation of automatic weighing is one of several projects underway at the Osborne Demonstration Farm near Osborne.

SBIR grants are designed to provide government support for small business initiatives in research and development of commercial products. SBIR programs stimulate technological innovations in private sector small businesses and balance the large government R&D support that previously were received almost exclusively by large government contractors. Commercial development in this instance includes developing practical automatic scales, associated electronics, and computer software to manage automatic pig weighing and to report results in a useful and timely form to farm managers.

According to Korthals, the new, automatic weighing method eliminates most of the manual labor of weighing animals and stress on animals during conventional weighing operations. Korthals notes in the

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SBIR applications that an accurate set of periodic individual animal weights can be used to plan optimum marketing strategies. He indicates that a key objective of this project is to develop software to help producers do a more accurate job of market scheduling to reduce the estimated average discount of $2.50 per head sort loss suffered per pig marketed.

Another benefit of individual and pen weight tracking, cited by Korthals, is the ability to improve scheduling of phased feeding for improved feed efficiency and reduction of waste nutrients. Osborne engineers plan to develop software that will track individual weights for a group of pigs so changes in feed can better match the changing feed requirements of the group. Phased feeding provides less expensive feed with fewer nutrients to match appetite to requirements, according to Korthals. He observes that matching nutrient requirements to feed intake results in leaner pigs, lower feed expenses, and reduced nutrients in the waste management load.

An important value of the automatic weighing system, cited in the SBIR grant application, was that individual weight tracking provides early recognition of sick animals or slow growth, allowing earlier treatment than otherwise possible and with less anti-biotic use and veterinary expense. Other values noted that records of growth allow producers to recognize poor performing animals and opportunities to improve genetic selection. The effect of variability of starting weights and growth rate can also be used to improve all management strategies for greater uniformity of market hogs.

Korthals concludes that the technical merit of all SBIR proposals is determined by a panel of experts that reviews each proposal. Reviewers are drawn from universities, government, and non-profit research organizations. From hundreds of proposals submitted, approximately 75 Phase I awards are granted by USDA each year. Only about 30 of these Phase I projects succeed in qualifying for follow-on Phase II awards. Final decision on awards are based on merit ratings assigned by reviewers, on the potential commercial value of the proposed application, and on the ability of the business to provide its own funding commitment and to bring the product to market successfully. Possible duplication of existing research, failure to meet critical USDA requirements, and SBIR program budget limitations also effect the success of each application. This is the first Phase II SBIR award for Osborne Industries, Inc., in its 25-years of business.

Osborne Industries, Inc., is a diversified manufacturer and distributor in the livestock equipment industry, manufacturers custom structurally-engineered plastics moldings for original equipment manufacturers, and develops plastics products for the railroad industry. Its headquarters and factory are located in Osborne, KS.

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