

## Organization of Packer Branding Programs That Use Specific Genetics

Because many packers do not believe that carcass pricing programs can deliver further improvements in the hog quality and consistency, several packers have purchased or made arrangements with genetics companies (Kenyon and Purcell, 1999). If producers rely on a particular type of genetics (a specific asset) for a packer's branding program, their hogs may have significantly less value to other packers. In this case, the difference between the value of hogs to the packer versus the next-best offer by another packer is subject to appropriation by the packer. One way that the packer may hold up the producer is to lower the initial price offer for the specially produced hogs. As long as the price offer exceeds that of the next-best offer, the producer has few options but to continue selling hogs to the packer.

Similarly, the packer's brand can be considered an intangible asset. Packers may be subject to considerable losses in brand value if a producer withholds the specialized genetics to obtain price concessions. As the value of a packer's branding program and associated holdup hazards increase, packers would be expected to seek added safeguards through complex contracts or vertical integration.

### Packer Branding Programs Using Specific Genetics

Several leading packers source genetics for their branded fresh pork programs from a specific breed or breeding company (see appendix D). Smithfield's NPD genetics provides exceptionally lean pork tailored to its Lean Generation brand. Hatfield's branded pork products, tailored to the Japanese market, are produced from Babcock genetics. While the degree to which Farmland and PSF brands are "customized" is not clear, the proprietary nature of the genetics suggests some level of customization.<sup>26</sup>

These cases provide general support for the relationship between asset specificity (genetics and brand name capital) and safeguards offered through complex contracts and vertical integration. Hogs for Farmland's "America's Best Pork" program are sourced from contracts that contain many safeguard provisions, including those to protect the proprietary nature of the genetics and provide producers with an assured outlet (table 5). Hogs slaughtered in PSF's Missouri plant are sourced from its vertically integrated operations. Hog procurement for Smithfield's Lean Generation pork was initially governed by a joint venture between Smithfield and a large hog producer.<sup>27</sup> As the program became more successful, and potential losses from hold up increased, Smithfield purchased the hog producer and restructured genetic development as a subsidiary within the company.<sup>28</sup>

### A Note on "Hybrid" Arrangements

The above cases also demonstrate the myriad of organizational arrangements that exist beyond complex marketing contracts and vertical integration, including joint ventures, production contracts, franchise agreements, and combinations thereof. In addition to long-term purchase agreements, the

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<sup>26</sup> In 2003, Farmland underwent bankruptcy and sold its pork processing operations to Smithfield Foods.

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<sup>27</sup> A joint venture is a type of collaboration between parties to share information or resources. Parties create and jointly own a new independent organization.

<sup>28</sup> The number of NPD hogs processed by Smithfield increased from 12,700 in 1993 to 4.4 million in 2001 (Smithfield Foods, 1994, 2001).

**Table 5—Select safeguard clauses governing the America’s Best Pork brand**

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**Genetic supply agreement:**

Monitoring:

- Review of all producer books, business records, and herds permitted.
- Producer must use specific record-keeping procedures
- Producer must report the number of hogs that received Triumph Genetics on a quarterly basis

Penalties—Producer must pay a termination fee for breach

Exclusive dealing—Producers must sell all hogs containing Triumph Genetics to Farmland

Termination clause—Producer must destroy hogs containing Triumph Genetics upon termination

Confidentiality clause—Producers must use “commercially reasonable” efforts to avoid disclosure of confidential information, including after contract termination

“Covenant not-to-compete” clause—For 20 years after current agreement term, producer must refrain from selling hogs for breeding purposes with respect to PIC Genetics that is transferred or licensed to Triumph\*

Dispute resolution—Center for Public Resources Mini-Trail for Business Disputes or binding arbitration using members of the American Arbitration Association (AAA)

**Market Hog Purchase Agreement:**

Purchase requirements—Farmland must purchase all hogs produced under the program.

Termination clause—Specifies advanced notice to Farmland if producer fails to accept changes to pricing program, and a period (90 days) after receiving written notice before Farmland can terminate the agreement.

Monitoring—Farmland permitted to monitor producers’ hogs to ensure all qualifying market hogs are sold to Farmland.

Penalty—Right to terminate for producer noncompliance.

Dispute resolution—arbitration in accordance with Commercial Arbitration Rules of the AAA.

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\*Triumph Genetics was sourced from the Pig Improvement Company (PIC), the leading provider of swine genetics in the United States.

Source: Iowa Attorney General, 2002.

Smithfield joint venture included production contracts with independent producers and a franchise agreement with a British genetics company. Hogs for most of Hatfield’s Japanese products are supplied through a joint venture with a leading hog producer.

To address the function of diverse organizational arrangements, Williamson (1991) categorizes organizational forms into three broad categories: spot markets, “hybrids,” and vertical integration. In hybrids arrangements, parties maintain autonomy, but some degree of bilateral dependency exists. Each category is distinguished based on incentive intensity, administrative control, and their ability to adapt to changing circumstances. Incentive intensity refers to the linking of actions and the consequences of those actions. Administrative control refers to coordination through control mechanisms, such as monitoring and career rewards and penalties, as opposed to the laws of supply and demand. Two types of adaptations are further

distinguished: independent responses to changes in product supply and demand, as reflected by prices, and coordinated adaptations between two parties in response to unanticipated disturbances.

Spot markets and vertical integration are polar opposites with respect to each feature (table 6). Markets are most efficient at adapting to price changes. Autonomous parties maintain strong incentives to increase net receipts by reducing costs and adapting efficiently. When parties enter a bilateral relationship and coordinated responses to uncertainty are required, vertical integration has adaptation advantages over markets. At the expense of reduced incentive intensity, vertical integration facilitates cooperation and increases bureaucratic costs as administrative controls are added.

All other organizational arrangements are viewed as hybrid arrangements that lie between spot markets and vertical integration with regard to each of the attributes. Parties maintain distinct ownership of assets, which provides advantages over vertical integration with respect to incentives provided and adaptations to changing prices. For coordinated responses between specific parties, contractual safeguards and administrative devices (dispute settlement procedures, information disclosure) outperform spot markets in facilitating adaptations to uncertainty. However, with added protections, incentive intensity is reduced.

Given the distinguishing features of each generic organizational form, their use can be matched to characteristics of the transaction in a discriminating way. For transactions characterized by high levels of asset specificity, disturbances that require cooperative adaptations between specific parties become more numerous and consequential. Incentives provided through spot markets will be quelled because responses require mutual consent, but parties will disagree and engage in opportunistic behavior. Instead, vertical integration replaces markets, as bureaucratic costs are incurred to increase aggregate gains from adaptation.

Over intermediate levels of asset specificity, however, hybrids may have advantages over spot markets and vertical integration. Hybrid arrangements may outperform markets in adapting to disturbances that require coordinated responses. At the same time, they may provide greater incentive intensity compared to vertical integration. As asset specificity increases, within a specific range, hybrids that offer greater control are expected, *ceteris paribus*. For example, production contracts used by Smithfield fall closer to vertical integration, compared to marketing contracts.<sup>29</sup>

**Table 6—Relationships between organizational arrangements, and performance and control devices**

Attribute	Organizational form		
	Spot market	Hybrid	Vertical integration
Autonomous adaptations	++	+	0
Coordinated adaptations	0	+	++
Incentive intensity	++	+	0
Administrative control	0	+	++

++ = Strong, + = Semi-strong, 0 = Weak.

Source: Williamson, 1991.

<sup>29</sup> Masten concludes that given the diversity of hybrid forms that exist, factors that lead to their adoption and design are also diverse and, therefore, should be analyzed on a case-by-case basis. If so, this would suggest a more prominent role for case study methodology in the analysis of hybrid arrangements. Furthermore, in a review of several published studies of hybrid arrangements in various industries, Masten finds measurement costs to be more pertinent to the design of hybrids compared to relationship-specific investments. This suggests that measurement costs should also be considered in the analysis of hybrid arrangements.