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A Competitive Edge for Virginia Agriculture

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Coming together is a beginning, keeping together is progress, working together is success.
--Henry Ford (1863-1947)

Virginia's agricultural producers and processors are part of a world market. One hears such an assertion countless times, but, beyond just hearing it, one must understand the real message: Virginia's entrepreneurs must be able to *compete* in that market. While having a "competitive edge"--lower production costs, access to markets, or some other factor--does not guarantee immediate economic success, some kind of edge is necessary for long-term viability. That basic economic fact is crucial to discussions of investments in agriculture, of Virginia's rural communities, and of state-level agricultural and rural policies. Policies need to be designed, and funds spent, in ways that help Virginia gain a competitive edge.

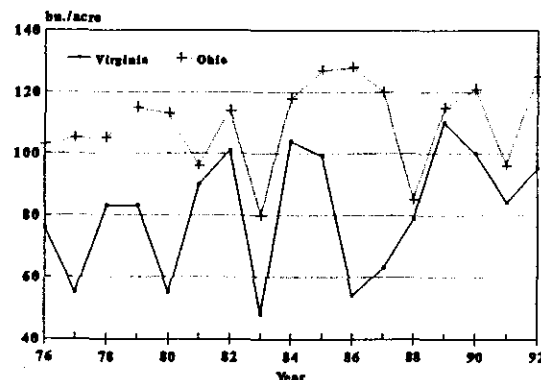
The importance of being able to compete is clearly illustrated by striking developments in Virginia's corn and swine sectors during the past several years. These developments have been documented in research sponsored by the Rural Economic Analysis Program (REAP) at Virginia Tech. The research effort has been led by faculty members David Kenyon (Department of Agricultural Economics) and Dan Brann (Department of Crop and Soil Environmental Sciences), with the assistance of Research Associate Suzanne Thornsby (Agricultural

Economics). Their research on the corn and swine sectors provides valuable lessons for examining the future competitiveness of these and other important sectors of Virginia's agriculture.

The Corn Sector

Virginia's corn producers have had trouble keeping their per-bushel cost of production competitive. Farmers on southeastern Virginia's sandy soils, especially, were hurt by variable weather patterns in the 1980s. Compared to Ohio--the closest Midwestern state with a different pattern of soil types and rainfall--Virginia's corn yields since 1976 have been lower and more variable (Figure 1).

Figure 1. Average corn yields for Virginia and Ohio, 1976-1992.



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Kenyon estimates that Virginia's statewide-average yield would have to increase nine bushels per acre, at the current per-acre cost, for Virginia to compete with Ohio. For some producing regions of Virginia, per-acre yields would have to increase 20 to

30 bushels. It seems, then, that some areas in Virginia simply are not competitive in corn production, and the downward trend in corn acreage--from 595,000 acres in 1980 to 320,000 acres in 1992--may well continue. That assessment raises two obvious questions: (1) Why does Virginia continue to fall behind? and (2) What does this mean for the competitive position of Virginia's poultry, swine, and dairy sectors, which depend on feedgrain supplies?

Reasons for the corn decline. Among several factors contributing to the decline in corn acreage have been the weather, national farm legislation, and state-level decisions on what to emphasize in research and extension activities. The weather impacts are unavoidable, but the other impacts come from decisions that could have been made differently.

The primary corn-sector thrust of the 1985 and 1990 Farm Bills has been to allow U.S. corn prices to be competitive in the world market and then to subsidize farmers if prices fall below a legislatively established target price. The target price for corn in 1992 is \$2.75, but many Virginia farmers are getting prices far below that level. Why is this so?

Virginia farmers do not participate in federal corn programs to the extent that Midwestern producers do. One reason for this is program yields. Subsidy payments are tied to assigned program yields, and assigned yields are often well below those realized on any specific Virginia farm. (Midwestern producers largely avoided this problem by spending time and money in the 1970s and early 1980s "proving" farm-level yields; that is, by showing evidence of higher farm-specific yields. This allowed individual farms to receive a higher assigned yield than the county average yield. Fewer Virginia farmers did this, and yields are now "frozen" through 1995, so Virginia farmers have no opportunity to change assigned yields.) A second reason for low participation in Virginia is that the land farmed by larger-acreage Virginia farmers may belong to as many as 10 owners, and such arrangements make participation in government programs difficult. The overall result is that many Virginia farmers have received the low prices (often lower than the cost of production) allowed by the farm bills, but not the subsidies.

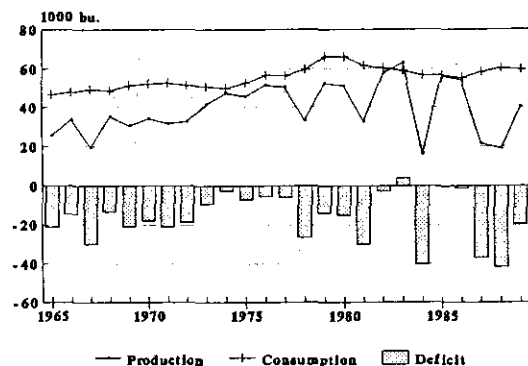
Decisions on the emphasis in research and extension activities have had a direct impact on the Virginia corn farmer's ability to compete. During the 1980s, Virginia farmers and Virginia Cooperative Extension personnel working with farmers "borrowed"

Midwestern technology. The Midwest's different soil types and rainfall patterns, however, mean that Midwestern technology is not necessarily transferable to Virginia. REAP-related efforts have focused on developing "packages of technology"--combining varieties, seeding rates, fertilization levels, etc.--for the soil and rainfall conditions in each of Virginia's production regions. Unfortunately, this effort, though useful, will probably only serve to constrain the acreage losses. Virginia has fallen behind, and gaining on other production regions will be difficult.

As resources became limited in the 1980s, decisions on research priorities had to be made. I am *not* suggesting here that these decisions were in error. I *am* suggesting that Virginia is falling behind in the struggle to be competitive in corn production and, as a result, the competitive position of Virginia's corn-using sectors may be at risk.

Implications for feedgrain-using sectors. During the 1980s the Virginia livestock, dairy, and poultry sectors steadily increased their use of corn relative to Virginia corn production (Figure 2). The state now uses 20 to 30 million more bushels of corn per year than it produces.

Figure 2. Deficits in Virginia corn production vs. feedgrain needs, 1965-1989.



Virginia's poultry sector has been using grain shipped by rail from the Midwest, and apparently southeast Virginia's large hog-production programs, as well as the increasing swine activity in south-central Virginia, may also use Midwestern corn. But users will buy corn from the lowest-priced source. During harvest, Virginia corn prices are below the Midwest price plus transportation costs. In October 1992, cash quotes as low as the \$1.80s--below most cash quotes in the eastern Corn Belt--were recorded in the Northern Neck corn-production area. As Virginia production

declines, however, harvest-period bargains to corn users will disappear, and users will see an increase in the portion of the year during which they have to pay Midwest prices plus transportation costs.

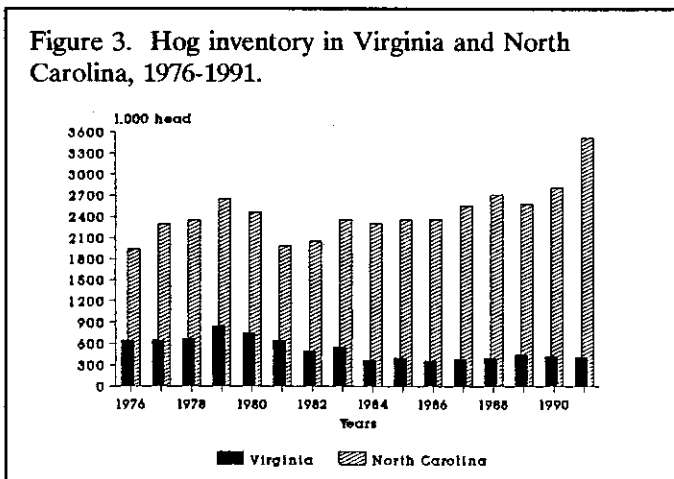
The messages from this look at developments in the corn sector are several:

- A competitive edge, once lost, is hard to recover.
- Policy decisions on support for research and extension activities in corn-production technology should consider the influence those decisions can have on the grain-using sectors.
- Likewise, decisions on support for research on feedgrains that might be more competitive than corn--such as grain sorghum or barley--must be based not only on the projected impact on Virginia's grain-producing industry, but also on the effects on the competitive position of grain-using sectors.

The Swine Sector

Events in Virginia's swine sector are not unrelated to developments in feed costs, but the agents of change are much broader than feed costs. A dramatic picture is shown by comparing the hog inventories in Virginia and North Carolina (Figure 3). Although the two states face essentially the same economic setting--producing states with good access to a market--the North Carolina inventory is increasing rapidly while Virginia's inventory slowly declines.

Figure 3. Hog inventory in Virginia and North Carolina, 1976-1991.



The presence of Smithfield Foods, Inc. in Smithfield, Virginia, gives the Virginia hog producer an edge in market access. REAP research suggests, however, that the benefits of market access have often been more than offset by high feed costs. During a recent 11-year period, Virginia hog producers who tried to grow their own corn incurred per-bushel costs 50 cents higher than did producers who bought all their corn. That per-bushel cost differential meant increased costs of around \$7.00 per hog. Such a competitive disadvantage in production costs is too much to be overcome by access to a nearby market.

The industry in North Carolina started moving in the late 1960s toward large (often contractual) programs that relied on corn from the Midwest. State funds were used to initiate a demonstration farm, a for-profit venture used as a proving ground for the latest production technology. Compared to Virginia, the attitudes of state policy makers and industry leaders appear to have been significantly different. North Carolina has been on a different--and more competitive--"track" since the early 1970s.

As environmental issues correctly have become more important, North Carolina has been able to move forward with issuing required permits for large, high-technology, and environmentally sound production facilities. In contrast, Virginia's permitting process has frustrated some producers. The process can be long (six or more months), and communication between applicants and the various state agencies involved has not always been clear. On the other hand, current efforts to establish a department of environmental quality and to improve coordination of efforts among state agencies should help.

The primary messages from this assessment of Virginia's swine sector are these:

- Virginia is already far behind in the race for a competitive edge.
- Access to markets is not enough if one faces significant production-cost disadvantages.
- An important difference between Virginia and North Carolina apparently has been the policy positions and attitudes of state agencies, specifically their willingness to facilitate investment via such measures as a demonstration farm, and to take a proactive position toward encouraging economic growth in agriculture.
- Two states (or regions, or countries) may be so nearly even in terms of production costs or access to markets that pro-active and efficient administration of environmental regulations may be the difference in determining which state, region, or country will hold a competitive edge.

Concluding Observations

Change is unavoidable: The face of Virginia's rural communities *will* change in the coming years. During the 1990s, issues surrounding the environment will be more prominent in discussions and in policy formulation, and this decade will bring more change than have prior decades.

In the year 2000, Virginia's top 10 agricultural commodities will be different than the top 10 in 1990. The swine and corn sectors have declined significantly in their percentage share of farm cash receipts, and both sectors face an uncertain future. Any

competitive edge Virginia corn producers enjoyed at the start of the 1980s has been lost as weather problems and a slow pace of technology development have allowed other regions to pull ahead. Hog producers were hit by the same weather problems (because feed costs are related to corn yields), but the hurdles facing Virginia's swine industry extend beyond high, variable feed costs. A reluctance to move toward contract production; the absence of any clear policy toward, and public support of, investment in production technology; and the administration of environmental regulations and permitting at the state-agency level all appear to have been factors.

The issue of competition in Virginia agriculture extends beyond corn and swine. Several other important commodities--for example, dairy, peanuts, and tobacco--are also heavily dependent on government programs. Huge federal budget deficits suggest less financial support of agriculture in the future. Current international discussions, including the General Agreement on Trade and Tariffs (GATT) and the North American Free Trade Agreement (NAFTA), suggest world competition will intensify. If Virginia does not anticipate and plan for these emerging challenges, many of our traditional agricultural activities will be seriously stressed during the 1990s. A state-level policy to protect and enhance a competitive edge and to ensure economic viability for Virginia's agriculture should be a top priority.

NOTICES

*A new REAP Report, *Permanent Part-time Farming in Virginia: Implications for a State Policy Toward Agriculture*, by Judith Stallmann and Jeffrey Alwang, is now available. You may request this free publication from Extension Distribution, Landsdowne St., Blacksburg, VA 24061-0512; phone (703) 231-6192. Please request Publication 448-210/REAP R011.

*The Virginia Farmer Direct Marketing Conference will be held February 8-9, 1993, at the Fort Magruder Motel in Williamsburg. The conference will feature a variety of topics, including new ideas for direct marketers, subscription marketing, and direct marketing of meat products. For more information, contact Charlie Coale, Dept. of Ag. Econ., Virginia Tech, Blacksburg, 24061-0401; phone (703) 231-5562.

*From the *Horizons* editor, REAP, and the Virginia Tech Department of Agricultural Economics, best wishes for the holiday season and the coming new year. Please be careful when travelling. Happy New Year!

Alan Raflo

For more information, please contact REAP at Hutcheson Hall, Rm. 216, Virginia Tech, Blacksburg, VA 24061-0401; telephone (703) 231-9443.

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