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**Proceedings** 

## Can Agriculture and Growth Coexist?

November 18, 1998

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Rural Economic Analysis Program
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Department of Agricultural and Applied Economics

Virginia Tech

Special Report April 1999

# **Virginia Farming in Transition**

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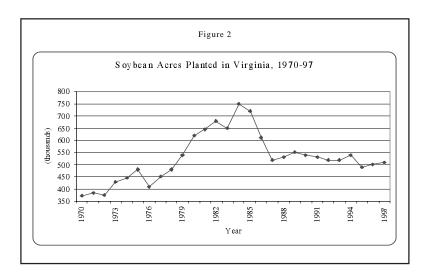
My objective (Figure 1) is to contribute context to and understanding of the environment in which you are going to make plans to maintain farming in your community and to try to maintain some open space. To this end, I will walk you quickly through a moving picture of what is happening to agriculture and where we are seeing changes, growth, or lack thereof in different cropping patterns in Virginia. The intention is to give you a snapshot of what is happening in the transition process in agriculture in this state. Then I will focus more specifically on what is happening in your jurisdictions. Finally, I will tell you what I think is going to happen to the notion that the marketplace, as a possible means of ensuring profitability of farming, will be sufficient to maintain farms in production in your areas.

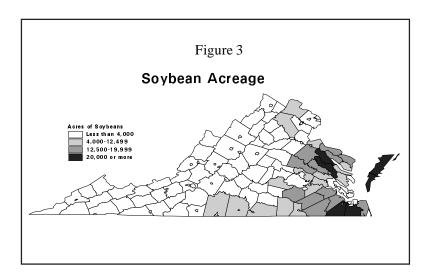
Figure 1

### Objective

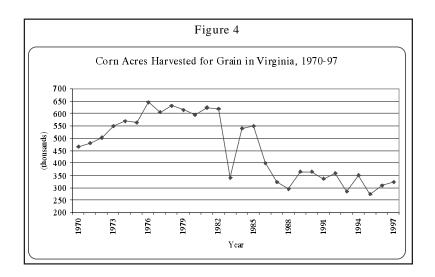
To look at current and pending changes in farming and what they will mean for land in farming and for open space in Virginia.

I will start by looking at changing acreage and production locations of some major crops in the state. We had about 450,000 acres in soybeans in the state (Figure 2), and soybeans is a key crop in many of your jurisdictions (Figure 3).

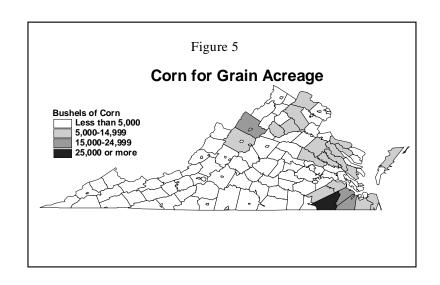


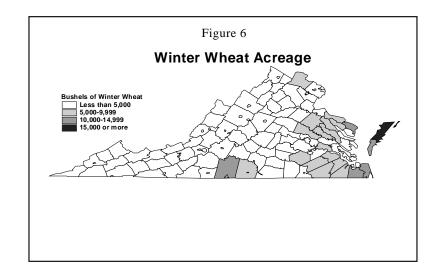


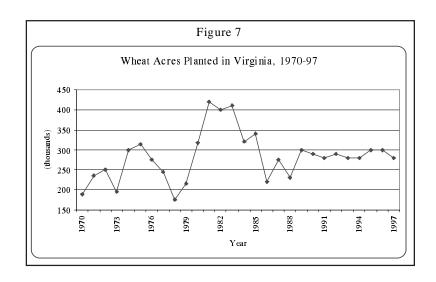
Corn acreage harvested for grain in the state is an interesting story. It is down from about 700,000 acres 10 to 12 years ago to around 300,000 acres (Figure 4). We have a hard time getting decent yields in this state because of unreliable rainfall patterns. The farm programs at the national level subsidized midwestern farmers who were able to participate in the programs more easily than Virginia farmers. This situation drove a lot of our farmers out of business. The exodus from farming is probably going to continue. Corn is located in the northern Valley, Northern Neck, and the Southeast (Figure 5). Some of the peanut-producing counties which use corn in their rotations have some of the largest number of acres involved. One of the problems with corn over the past 10 to 15 years is that we have not had the research resources or the commitment to develop new varieties that produce well here. You cannot just borrow midwestern technology, bring it into Virginia, and produce corn profitably. It does not work.



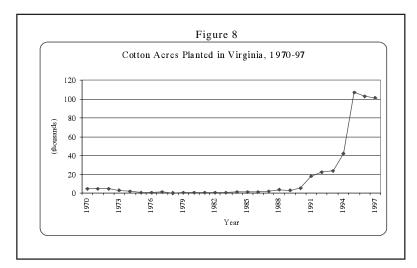
Wheat, around 300,000 acres, is grown a little more broadly than corn and soybeans (Figure 6), with Accomack County being the number one county in wheat production. The acreage, yields, and potential of wheat has grown considerably in the state (Figure 7), at least partly because of a concerted effort by a team of experts in the College of Agriculture and Life Sciences at Virginia Tech using modern technology and management to increase yields.

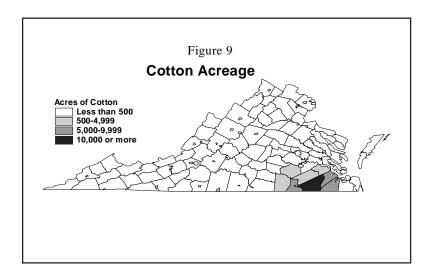




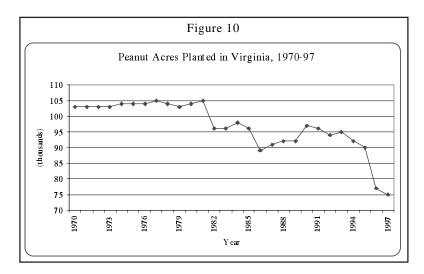


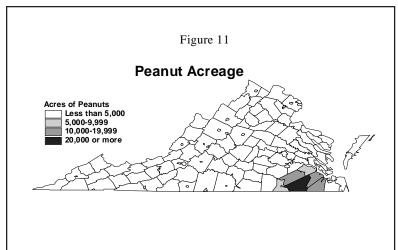
Cotton is a phenomenon in this state since the early 1990s. Production increased rapidly to 105,000 acres in recent years (Figure 8) primarily because in 1994/95 cotton prices reached \$1.00 per pound and higher. This rapid production increase resulting from a price rise goes on in agriculture in this state and all around the country. We see price rise above costs of production for various outside reasons. We see it as an opportunity to make more money, over-plant causing supply to increase, drive price back down, and go broke. The phenomenon works that way. I talk to students in my beginning class about what I call a "micro-macro trap." I tell them that one farmer who starts to increase his acreage in cotton in southeastern Virginia is not going to change the price, is not going to influence the marketplace. The micro or individual level cannot make any difference. But if you multiply that individual decision all across southeastern Virginia and, more importantly, all across Georgia, Alabama, and Texas, it makes a big difference. These prices that went above \$1.00 in the 1990s are now back into the mid-\$0.50s and may be headed still lower. We increased production, we bought equipment, we brought land into production, and we are driving that supply function out to the right. Unless we can boost demand, the result will be lower prices. The cotton acreage tends to be in the peanut-producing counties, I might add, at least partly because cotton is a better rotation crop than is corn for many of our peanut farmers (Figure 9).





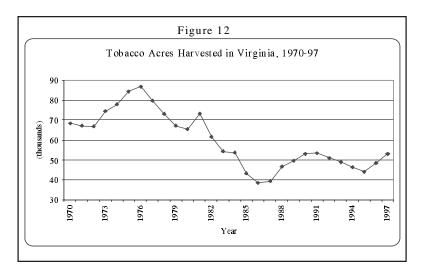
Peanut acres are going down (Figure 10). We are probably eventually going to lose the peanut price support program. Price supports were reduced in the 1996 Freedom to Farm Act. We appear to be headed toward some more stable, but lower, base-level of production. Notice the scale: we are down from about 100,000 acres in 1981 to about 75,000 acres 1997. Peanut acreage is primarily in the southeast corner (Figure 11). It is a very, very important crop to that area.

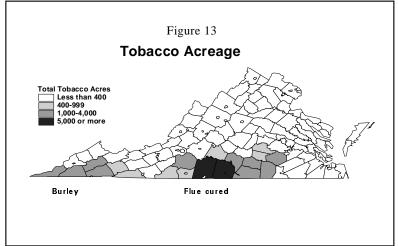




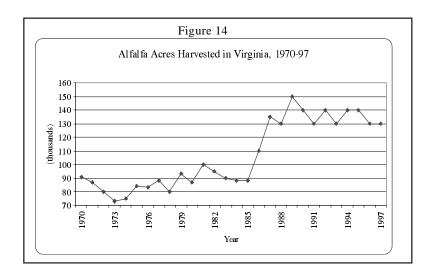
Tobacco acreage harvested in Virginia varies around 50,000 acres (Figure 12). We know this crop has some very uncertain times ahead of it. Quota was cut by 17 percent for 1998, sales for flue cured tobacco for this year (1998) are in, and we are probably headed for double digit percentage cuts in quota again. The quota situation is not quite as drastic in burley, so far, as it is in flue cured (Figure 13). We are monitoring the preponderance of programs that are being negotiated with several of the States Attorneys General and will try to have some impact on settlements to protect farmers' interests. Since we lost the proposed settlement at the national level last year, we are down to state-level programs. I do not find anything in the proposed state-level programs that expresses any concern for the quota rights of farmers or for helping these rural communities make the adjustments they will have to make across the next ten years or so. We will see if we can get some of that money back, but I am somewhat discouraged.

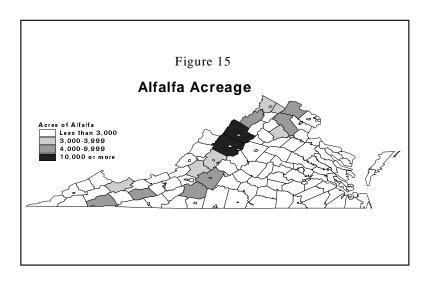
<sup>&</sup>lt;sup>1</sup> A quota cut of 18 percent was announced on December 15, 1998.



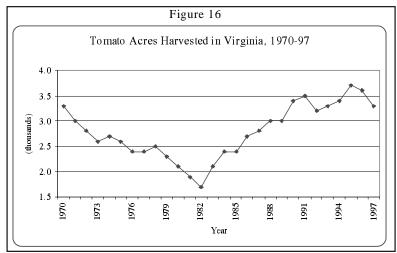


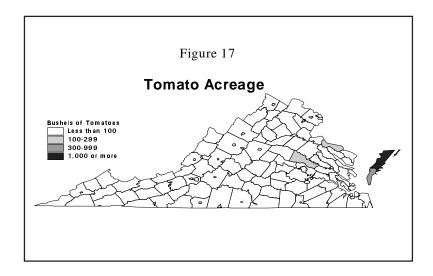
One of the things happening is that we are moving out of corn and away from row crops, which require time, labor, and equipment, to crops like hay, which require much less time, labor, and equipment. Hay acreage, including alfalfa, has expanded considerably in the state (Figure 14). Part of that change is not a surprise because we are a very large beef cattle state. The acreage tends to be around Harrisonburg, in Rockingham and Augusta counties (Figure 15).



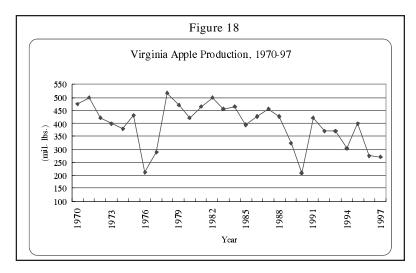


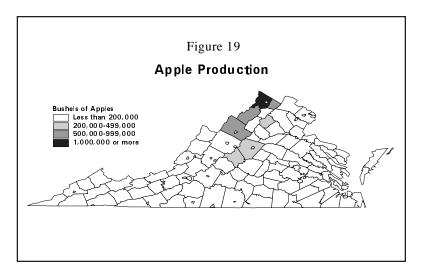
We have gone from having independent farmers producing tomatoes to almost total corporately controlled, large acreage production (Figure 16). We have about 3,500 acres of tomatoes. It is still a significant crop. It is located primarily on the Eastern Shore counties and two Northern Neck counties (Figure 17).



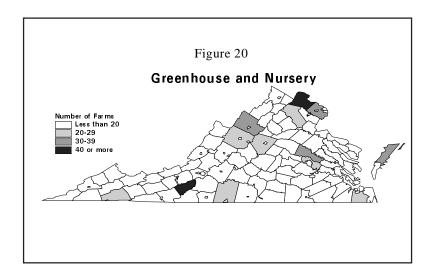


Apples show a stable to downward trend in the state (Figure 18). Apple growers face a difficult situation this year with some producers selling processing apples for less than \$0.05 per pound. We cannot continue to sell at those prices. Some infrastructure and market development may be needed. Orchards are a type of open space that is nice to drive past; they are nice to look at; they are really attractive, vis-à-vis a lot of the things we think about as perks of open space. Probably nothing is nicer to drive past than a well maintained apple orchard. They are mostly in the northern part of the state (Figure 19).

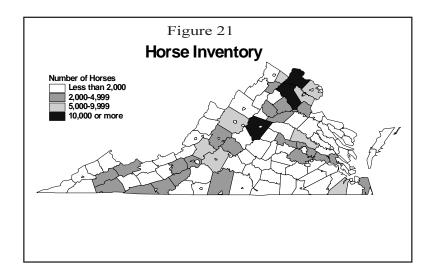




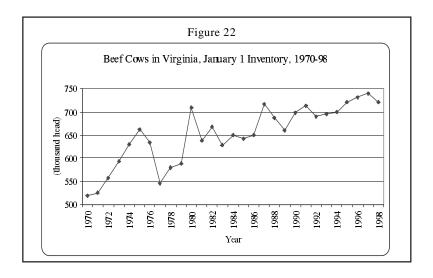
One of the growth areas is greenhouse and nursery (Figure 20). It is probably one of the areas we are going to see expand in the state. It is one of the activities that being located within 400 to 500 miles or so of 60 percent of the United States population may make a difference. We are dealing with perishable products and high shipping costs. We found that being located close to a lot of people in the Northeast does not make much difference in where we slaughter beef cattle or where we produce broccoli or things like that. We found out we may not be able to be competitive in our production. But greenhouse and nursery is an area where it probably does make a difference, and that difference may be why we are seeing growth in this particular sector.

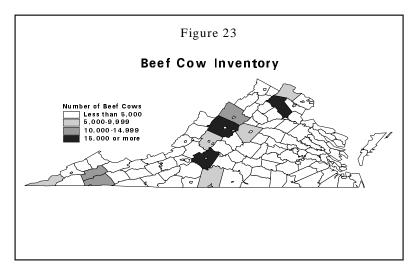


Getting time series data on the equine sector is difficult, but horses are becoming important in this state (Figure 21). They are having a significant economic impact. They provide the type of farming that we are probably going to increasingly move toward—part-time farming. We are going to see a lot of these part-time operations for breeding, commercial, and recreational purposes. And they are a type of activity that you might find desirable for open-space purposes.

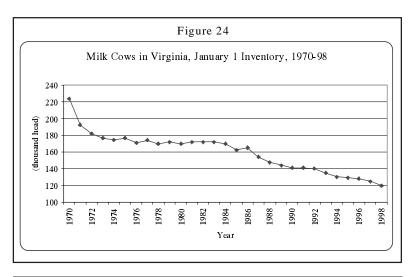


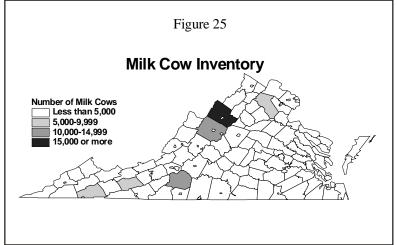
Nationally, the number of beef cows has been reduced substantially. We have not reduced numbers that way in Virginia (Figure 22). A significant percentage of these beef cows are owned by people who make most of their living from off-farm employment. We have been able to sustain production through some very difficult economic times vis-à-vis selling price for calves. We are in the top 15 producing states in the nation with over 700,000 beef cows. They are located primarily in the Shenandoah Valley and southwestern counties (Figure 23). Beef cows are raised all through the state, but not always with 15,000 cows or more in the county.



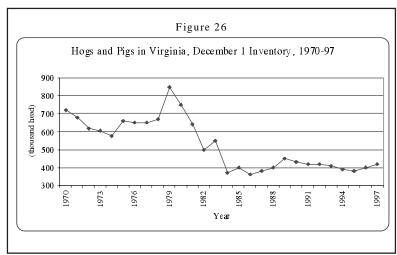


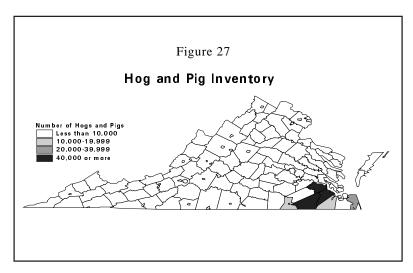
Milk cows are going in the opposite direction (Figure 24), both nationally and locally. We are greatly increasing milk production per cow so that nationally our milk production has not gone down. We just do not need as many cows as was historically the case. Dairy is one of the sectors that looks the most economically viable in the state with milk prices in the \$15 to \$16 per hundredweight range. I hope that lasts, but I am dubious—I do not think it will. I think we are facing some challenges as well in the dairy sector as soon as we get a surge in production next spring. Some consolidation is occurring here. I think we are going to have fewer dairy farms in the state. Again, dairy is typically a very desirable type operation to drive past. Some waste management issues exist with which we need to deal, but we can deal with those with good technology and sophisticated approaches. Dairy is an open space, pastoral type program. Rockingham County has a large number of milk cows (Figure 25).



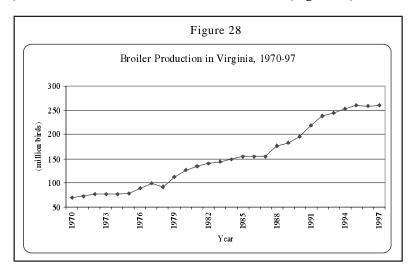


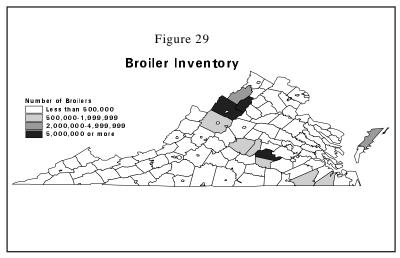
Hogs and pigs in the state show a dramatic decrease (Figure 26). About half the hogs in the state are owned by one major producing company resulting in the number of independent swine producers being down dramatically compared to 20 years ago. Most of the numbers are now in the southeastern corner of the state (Figure 27). I do not think it will be any great news to you that environmental and other concerns are associated with expansion down in that area. Some of you have probably been involved with some of those decisions.

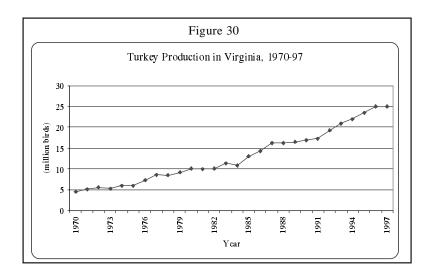


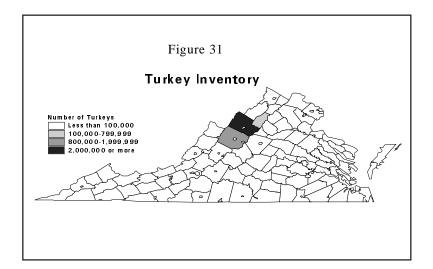


We are a top ten state in the nation in broiler production (Figure 28). You need to keep in mind that broiler production requires crops, grass—something on which to spread the poultry litter. Rockingham County is again the number one county, but broilers are located through the Piedmont and through many of your jurisdictions (Figure 29). We are in the top five turkey-producing states, with solid growth in that area (Figure 30) and with an even more concentrated location (Figure 31).









Why are all these data important? The economic impacts from agriculture and agribusiness in the nation as a whole indicate about 13 percent of economic activity and about 17 percent of jobs are associated with agriculture (Figure 32). Our numbers in Virginia are not quite that high but are in the neighborhood of 11 to 12 percent of the economic activity and 13 to 15 percent of all jobs. Typically, the way we have done these studies, we have not included the forestal and fisheries and wildlife sectors. If you add those sectors, you get a significant part of the economic activity in the state and a significant source of employment opportunities. This economic impact is important.

<sup>&</sup>lt;sup>2</sup> See Lamie, David. *The Economic Impact of Agriculture and Ag-Related Industries on the Commonwealth of Virginia.* VCE Pub. 448-233/REAP R035. August, 1998.

#### Figure 32

The U.S. food and fiber system (farming and its related industries) accounted for \$997.7 billion (13.1 percent) of the gross domestic product (GDP) in 1996 and employed almost 23 million people (17 percent of the U.S. labor force).

Source: Kathryn L. Lipton. *The Food and Fiber System: Contributing to the U.S. and World Economies*, ERS, U.S. Department of Agriculture, p.iii.

I want you to recognize that as we talk about small farms, limited resource farms, farms that have someone who is retired on them, on average, they have no farm-related income shown for those types of operations (Figure 33). When you have someone living on a farm and working someplace else, making a substantial household income of some \$75,000, the farm contribution to that income, at the national level, is actually negative. We do not have these same data for state or local jurisdictions, but the concepts we are talking about—profitability or lack thereof of farming—are the same. When we talk about farm sales, we are talking about \$150,000 to \$200,000 in sales before the farm-related income contribution is major. I will use \$100,000 as a cutoff level to demonstrate how many farms we have in the state and how we compare to surrounding states.

#### Figure 33

 $Data\ from\ the\ ARMS\ made\ it\ possible\ to\ construct\ a\ typology\ of\ U.S.\ farms.$ 

Small farms have sales less than \$250,000. They include:

**Limited-resource** (291,700 farms): operator household incomes under \$20,000, farm assets under \$100,000.

Retirement (261,400 farms): operator's major occupation is retired.

**Residential/lifestyle** (537,200 farms): operator's major occupation is "other," i.e., neither farming occupation nor retired.

 $\boldsymbol{Lower\ sales}\ (524,\!800\ farms):\ operator's major\ occupation\ is\ farming\ and\ farm\ sales\ are\ under\ \$100,\!000.$ 

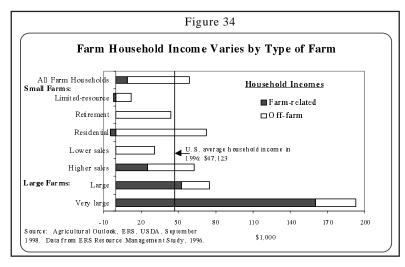
**Higher sales** (192,300 farms): operator's major occupation is farming and farm sales are \$100,000 to \$249,999.

Large farms have sales of at least \$250,000. They include:

Large (95,500 farms): farm sales are \$250,000 to \$499,999.

Very large (58,800 farms): farm sales are \$500,000 or more.

The national average household income is \$47,123 (Figure 34). If we take this national average and add the on-farm income from farms selling over \$100,000 of product to the off-farm income, we are in good shape. Incomes in the \$65,000 to \$75,000 range provide a decent income. When we go to large farms, you are talking about \$250,000 to \$500,000 in annual sales. Notice the farm income component is actually above the average household income in the United States. When we go to very large farms, those with above \$500,000 in sales a year, we have substantial amounts of farm income coming from that relatively small percentage of all farms, but certainly dominating in terms of income they earn that is a percent of all farm income. These are national figures and I will bring these down to state level.



At the state level, we get the same picture (Figure 35). When we get to the very small farms with less than \$20,000 in sales, the contribution to income is negative. It takes the larger operations. At the national level, the 1 percent of the farms with sales above \$1,000,000 is getting almost 35 percent of all net farm income. The same pattern holds in Virginia. We are "Wal-Marting" virtually everything, all through agriculture. Because huge economies of size exist, the large operations can operate more cheaply. And given that we have a competitive industry with no barriers to entry, we have nothing to stop anyone from coming into corn production or egg production or cotton production when prices look attractive in the short run. But with the increased supply in response to the price increase, we tend to always drive those profit opportunities away. One of the ways you survive as prices come down is you get bigger and you get cheaper. The formula is "get bigger, get cheaper, or get out." That mentality often happens at the farm level, at the processor level, and at the input supply level. It is happening with grocery stores.

Dollar Sales, Net Cash Income, Percent of Net Cash Income by FarmSize, 1997						
		% of	\$ Sales			
Size (\$1,000				Average Net	% of Net Cast	
sales)	% of Farms	Crops	Livestock	Cash Income (\$)	Income	
≥ 1,000	1.0	21.5	34.8	1,123,721	34.7	
500-999	1.7	11.4	13.8	285,912	16.3	
250-499	4.0	14.5	13.9	116,647	15.9	
100-249	10.0	38.3	18.6	58,947	20.1	
50-99	9.1	7.3	9.8	35,229	10.9	
20-49	13.1	4.6	4.5	9,890	4.4	
< 20	61.1	2.3	4.6	(1,112)	(2.3)	

What I call the "Wal-Mart effect" is Wal-Mart coming in and taking advantage of huge economies of size in buying, distributing, and selling, but a lot of small, family-type operations have gone out of business as a result. We are seeing the same thing happening in farming. We are probably going to see another surge of exits, unfortunately, within the next few years. We may be sitting very close to as big a farm crisis as we had in the 1980s. We are selling slaughter hogs, this week, for \$15 per hundredweight. Serious analysts are concerned that slaughter hogs would go for \$10 per hundredweight. Never in my lifetime have we seen prices like that. Corn all over the Midwest at harvest this year was \$1.60 to \$1.70 per bushel. Wheat actually went under \$2.00 per bushel in the Midwest. I have never seen that before, not in modern history. We have the fallout, if you will, from the 1996 Freedom to Farm Act which turned the production juggernaut loose. It allowed us to produce huge amounts of product and put it on the world market that increasingly does not want it because of all the economic problems in Asia. The result is that we have price and income difficulties. These difficulties are not going to go away overnight. We need to appreciate and understand these factors when we think about whether profitable farming can keep land open in our particular areas.

Virginia farms by size of farm (Figure 36): Acres are on the left, number of farms in the middle, percent of total farms on the right side. We have about 48,000 farms in this state, which, as defined by the Bureau of the Census, include farms with sales of \$1,000 or more. You can see we have a very large number of small farms. But we have a significant number of farms that have 500 to 2,000 acres. We have a number of very large, commercial farms in the state that can compete in what they are doing with anybody in the United States or anywhere in the world. If you look at farm distribution by sales, and that may be the more significant approach, we have exactly 10 percent of our farms, if you add the 1.8 and the 8.2 on the right hand side, that sell more than \$100,000 a year (Figure 37). Let me will remind you that when you look at the income data, you have to have a farm of that size before you can have a significant portion of household income from farming activities. A lot of it will still be from off-farm employment, but when we get above \$100,000 in sales, on-farm income usually starts to make a major contribution to total household income.

Number of Virginia Farms by Size of Farm, 1996*
Size in Acres No. Farms Percent of Total Farm
1-99 25,200 52.5
100-499 18,480 38.5
500-999 2,880 6.0
1,000-1,999 1,104 2.3
≥2,000 336 .7

Fig	gure 37			
Virginia Farms by Farm Sales				
Farm Sales	Percent of Virginia Farms			
< 50,000	85.4			
50,000-99,999	4.6			
100,000-499,999	8.2			
>500,000	1.8			

Compared to states around us with farms having sales over \$100,000, we are not a small or insignificant agricultural state by any stretch of the imagination (Figure 38). Look at Maryland. They have far fewer farms than we do and over 50 percent more of the larger farms than we do. Pennsylvania has about the same number of farms as we do. But again, they have over twice as many farms with large sales because they are a major dairy-producing state. We do not have to be very large in dairy before we sell \$100,000 in milk per year. If we get into the farm states of Ohio, Iowa, Indiana, notice that the number of farms with sales above \$100,000 is in the 20,000s and 30,000s. When we talk about 250 and 300 acres and more of grain production, for example, we can have that level of annual sales very easily.

	No. Farms With Sales Above \$100,00	00 by State
State	No. Farms (1996)	Sales Above \$100,000 (%)*
Virginia	48,000	4,800 (10.0)
Pennsylvania	50,000	10,050 (20.1)
Kentucky	88,000	8,888 (10.1)
North Carolina	58,000	10,440 (18.0)
Georgia	43,000	7,439 (17.3)
Maryland	13, <b>7</b> 00	2,850 (20.8)
Ohio	72,000	9,864 (13.7)
Illinois	<b>7</b> 6,000	21,736 (28.6)
Indiana	61,000	11,712 (19.2)
Iowa	98,000	31,360 (32.0)

In terms of some quick facts, this overhead pretty much looks at your jurisdictions (Figure 39). Jeff Alwang's students put some of these data together. Basically, what you see all through the jurisdictions you represent is the number of farms decreasing and land in farming decreasing. That trend has been there a long time. These data are from 1987 and 1992. The 1997 agricultural census data will be available soon, and we will be able to update this information. But these trends will continue or will accentuate when we see the 1997 data.

			Figure 39			
	Quick Fact	s on Farms, L	and in Farming in	n Virginia by Cit	y/County	
	No. Farms Land in Far		ı Farms	Percent Change		
County or City	1982	1992	1982	1992	No. Farms	Land
Virginia Beach	231	156	51,275	43,332	-32	-15
Chesapeake	282	189	56,109	52,948	-33	-3
Suffolk	376	268	94,224	83,047	-29	-12
Louisa	482	384	93,718	81,427	-20	-13
Loudoun	888	942	206,601	195,476	+6	-5
Prince William	314	259	51,172	32,973	-18	-36
Fauquier	973	925	247,942	235,533	-5	-5
Frederick	632	536	126,087	98,142	-15	-22
Isle of Wight	333	212	100,415	86,247	-36	-14
Southampton	518	329	198,508	178,469	-36	-10
Bedford	1,353	1,227	218,546	200,507	-8	-8
Orange	461	419	118,613	107,700	-9	-9
Shenandoah	922	832	139,595	125,394	-10	-10
Culpeper	537	471	143,434	115,295	-12	-19
Rockingham	2,046	1,864	261,595	236,074	-9	-10

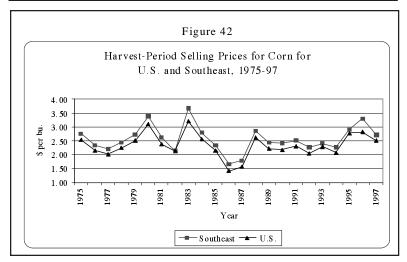
The number of farms in your area that have more than \$100,000 in sales, based on 1992 data, is about 1,500 in the jurisdictions represented here today (Figure 40). Fifteen hundred is a very significant number of relatively large, competitive farming operations. Not surprisingly, Rockingham County, the leading county in the state in dairy and poultry, is at the top of the list with 683 farms with sales of \$100,000. As I said, if we are in poultry or dairy, we do not have to have very large acreage to sell that much product. If we are in the beef business, we probably have to be in a position of up to 300 beef cows to sell that much product a year, and that number of cows requires a very large acreage.

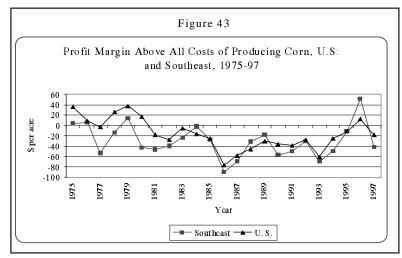
Figure 40					
Quick Facts on Number Large Farms by City/County					
Number Farms With \$100,000 or More in Sales					
City, County	No. Farms (in 1992)				
Virginia Beach	29				
Chesapeake	48				
Suffolk	102				
Louisa	16				
Loudoun	67				
Prince William	11				
Fauquier	73				
Frederick	43				
Isle of Wight	76				
Southampton	157				
Bedford	45				
Orange	36				
Shenandoah	101				
Culpeper	41				
Rockingham	683				

We continue to see some of these major field crops that I talked about represented in your jurisdictions as major crops, plus some significant livestock, vegetables, and specialty crops (Figure 41). I wanted to pick on corn just a little bit to drive home the point that I made earlier. This overhead shows harvest price for corn in the United States and the Southeast (Figure 42). I just want to show how difficult it is to be competitive in a global marketplace when the tendency is always to expand production every time we get a price increase and drive the profit out for everybody. Agriculture is like that, and agriculture will be like that for the foreseeable future. We are seeing prices as low as \$1.50 for corn. And perhaps more significantly, we need a profit margin where we are talking about a selling price above all per bushel costs—including capital replacement costs, etc. (Figure 43). You want to go into

the corn business? Making a profit above all costs in corn is a very difficult task in this country because of that phenomenon that I have talked about—the tendency is to increase production anytime price rises above cost of production. We had bad weather in 1995 and record high prices in 1996; we inundated the market in the following 2 years with over 80 million acres planted and a crop this year close to 10 billion bushels. The big production is made worse by the economic problems in Asia. We cannot sell this expanded production for the very high prices that caused it.

Figure 41						
Quick Facts on Major Crops by City/County						
Significant			gnificant			
County or City	Major Crop(s)	Major Livestock	Specialty?	Nursery/Greenhouse?		
Virginia Beach	Corn, wheat, soybeans	Hogs	Vegetables	133,224 sq ft		
Chesapeake	Com, wheat, soybeans		Vegetables	1,080, <b>7</b> 89 sq ft		
Suffolk	Com, wheat, soybeans	Hogs	Vegetables	784,405 sq ft		
Louisa	Com, wheat, soybeans	Beef	Grapes			
Loudoun	Com, wheat, soybeans	Beef, dairy	Vegetables	393,704 sq ft		
Prince William	Corn, wheat, soybeans	Beef, dairy				
Fauquier	Sorghum, barley, potatoes	Beef, dairy	Vegetables	160,208 sq ft		
Frederick	Com, wheat, soybeans	Beef	Vegetables, fruits	257,348 sq ft		
Isle of Wight	Com, soybeans, peanuts	Hogs				
Southampton	Com, soybeans, peanuts	Poultry/eggs				
Orange	Com, soybeans, wheat	Beef, dairy	Fruits			
Culpeper	Corn, wheat, soybeans	Beef, dairy	Vegetables	619,700 sq ft		
Bedford	Corn, hay, tobacco	Beef, dairy	Fruits	96,434 sq ft		
Rockingham	Corn, soybeans, hay	Poultry, beef, dairy	Fruits, grapes	233,878 sq ft		
Shenandoah	Com, soybeans, hay	Poultry, beef, dairy	Fruits, grapes			





Let me share with you a few closing thoughts. I have only two or three of these to lay out. I think we will see fewer farms, larger farms, less land in farming, less row crop farming, more part-time farming, more niche markets and niche marketing, and more attention to value-added activity in our farm efforts (Figure 44). If we are going to stay in farming, we have to do some of these things. We must find some ways to enhance value. Just producing a homogeneous commodity and selling it in a global market with every other large, commercial producer around the world is not going to provide a profitable farm activity.

#### Figure 44

### The likely developments:

- 1. Major challenges to profitability of farming in Virginia
  - Fewer farms
  - Larger farms
  - Less land in farming
  - Less row crop farming
  - More part-time farming
  - More niche markets and marketing
  - · More attention to value added

If we are going to keep farm families farming, we are going to have to recognize that we must find ways to provide more off-farm income (Figure 45). We need viable rural economic development programs. We need high-quality jobs; an investment in infrastructure needs to be made. I think those sorts of things have to happen. If we do not have that good off-farm job when the time comes that somebody from those farm families has to work off-farm, we run the risk that the families will eventually have to move out of the community to find jobs. The result is a disruption that ripples all through the community. We must recognize that not only are we talking about the viability of farming and the profitability of farming, but we are talking about opportunities to enhance off-farm income as well.

#### Figure 45

- 2. More off-farm income will be needed to keep families on the farm. We will need:
  - Rural economic development programs
  - New high-quality jobs
  - Investment in infrastructure
    - Education
    - Roads
    - Water
    - Waste management

As we think about plans, we have to understand what a public good is. We need to appreciate open space, to appreciate what farms provide (Figure 46). But we need to recognize that appreciation is not necessarily something that will happen based on private incentives or the marketplace. Collectively, as governmental entities in our local areas, we may have to make sure this appreciation can happen, if it is going to happen. That is what a public good is: something that we value broadly within the public community but is not necessarily going to occur if we rely on private or market incentives. We have global markets. We compete with Argentinean corn farmers. We have a competitive farm economy. We tend to jump at these short-term price opportunities and, unfortunately, make long-term capital investments in response to what turns out to be a temporary price increase. We expand output, drive price back down, and then sit there carrying a debt load. Some of you are smiling, and I suspect the smiles are evidence you recognize what I am saying. It is a tough situation to be in, and we are sitting in it right now with several of our agricultural commodities.

#### Figure 46

- 3. To keep families on the land and maintain open space, you must have a plan. The plan will need to reflect understanding of:
  - Public goods
  - Global markets
  - Competitive farm economy
  - Environmental issues
  - Use-value taxation
  - Estate planning
  - Progressive tax policies
  - Value of land for development

Environmental issues are probably determining more of where intensive livestock and poultry programs are going in this country than are economics. They are in Guymon, Oklahoma, in Utah, and in unusual places. In some areas of Virginia, we will not tolerate those intensive operations because of perceptions that they are not necessarily good neighbors or that they are not kind to the environment. We need to deal with those perceptions because a lot of times it is those intensive operations that can generate money and make profits at the farm level.

Use-value taxation is an important issue for farm viability. Estate planning is important as well. Virginia Department of Agriculture and Consumer Services had a program in Charlottesville about a month ago where they talked about the importance of being able to transfer farm assets from one generation to the next. That transfer process is clearly very important. It is very complementary to what is being talked about today.

Progressive tax policies will be important. We have to find a way to do some local things in a Dillon's Rule state. I understand the need to get some of the tax burden off real estate. We have to recognize that land has a value for development purposes in our localities that we are going to have to confront and deal with. People come to us sometimes from the northern Valley counties and the conversation goes

"What can we grow up there to keep our counties in farming?"

"What's the land worth? \$8,000 to \$10,000 per acre?"

"No, more like \$15,000 per acre."

The answer is nothing legal. We will have to intervene. The marketplace is not going to keep this land in farming. The marketplace is going to drive it toward some higher value use unless a plan is made, and unless something is done to influence the use of land and open space in our communities.

If we want open space, if we want farming to continue in our areas, we must recognize and deal with many of the issues I have raised and with the needs and issues that other speakers will raise. If we do not, we will lose our farms to development pressures or to low commodity prices or to both. We must have a plan and policies that reflect the realities of our modern global marketplace.