



The 1996 Farm Bill: A Virginia Perspective

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I am glad to see you all here today. I was concerned that the weather was too good to get many people out of Southeast and I suspect there are quite a few people still out picking cotton. I am a bit surprised that this many people would turn out to listen to a bunch of economists tell about what's likely to happen in the future.

My assignment today is to talk about the implications of the Farm Bill for Virginia (Slide 1). I am going to talk a bit about the Farm Bill, and give an overview of where we are in the Virginia agricultural economy right now. Then, I am going to outline some of what I see as opportunities and challenges for Virginia agriculture as we go through the course of the seven years in this Farm Bill.

Slide 1.

A Virginia Perspective

- ◆ **Farm Bill implications for Virginia**
- ◆ **Overview of Virginia agricultural economy**
- ◆ **Opportunities and challenges**

But I want to take just one second first to acknowledge the group of you. I do not often get a chance to speak to such a distinguished body of agricultural leaders in Virginia. And I want to thank you personally for what you do for Virginia agriculture. You do not have to make a living doing what you do. There are easier ways for you to make a living, and yet you do it, and you do it extremely well. So thank you very much for what you do.

FARM BILL IMPLICATIONS FOR VIRGINIA

There are five major parts to the Farm Bill (Slide 2). You know a lot about the commodity program section already; you have experienced some of it. There are some changes in crop insurance. There are changes in farm credit. You have already heard some of the implications of the changes in trade. I am going to talk a little bit more about conservation programs. You probably have not heard as much about the conservation programs in the 1996 Farm Bill. I think the conservation components are very important for Virginia's agricultural economy, and they are very important for the livestock part of Virginia's agricultural economy.

Slide 2.

1996 Farm Bill

- ◆ **Commodity programs**
- ◆ **Crop insurance**
- ◆ **Credit**
- ◆ **Trade**
- ◆ **Conservation programs**

These are highlights of commodity programs in the Farm Bill in 1996 (Slide 3). You know the things that were eliminated. We eliminated target prices. We eliminated deficiency payments. We eliminated the set asides, the Acreage Reserve Program (ARP). We eliminated the farmer owned reserve. We eliminated livestock feed assistance. And we eliminated mandatory crop insurance. In place of these, one of the major things we instituted was the transition payments for wheat, feedgrains, and cotton.

Slide 3.

Highlights of Farm Bill 1996

- ◆ **Eliminated: Target prices, deficiency payments, ARP, farmer-owned reserve, livestock feed assistance & mandatory crop insurance**
- ◆ **Transition payments for wheat, feedgrains, and cotton**

The other elements of the highlights of the Farm Bill of 1996 (Slide 4) are that we phased out the milk support; we ended the budget assessment in the dairy sector; the peanut support was lowered; and carryover undermarketings were eliminated. You have already heard a lot about the trade policy. We

did fund the Export Enhancement Program (EEP) to the GATT maximum. We authorized it but did not appropriate the allowable amount for it. Conservation programs were considerably beefed up. And commodity programs were suspended. I am sure that everybody realizes that the commodity were not necessarily eliminated: the base statutory authority for commodity programs still exists and if things get bad enough it is an open question about whether we would go back to some sort of support such as we have had in the past.

Slide 4.

Highlights of Farm Bill 1996

- ◆ **Milk support phased out, budget assessment ended**
- ◆ **Peanut support lowered**
- ◆ **EEP funded to GATT maximum**
- ◆ **Conservation programs beefed up**
- ◆ **Commodity programs suspended**

I received these numbers the other day from Bob Bass's office in agricultural statistics (Slide 5), and I thank them. These were the 1996 transition payments for Virginia. We had 98.3 percent enrollment of the base acres in Virginia in the 1996 farm program. That totals nearly a million acres. We had 527,000 acres of corn, the largest acreage enrolled, and the total of the payments is nearly \$20 million. Twenty million dollars sounds like a lot of money . . . Texas got \$456 million in transition payments this year. I was staggered when I heard about that amount. Our cotton producers were struggling to try to establish base over the course of the last few years as they expanded their cotton acreage. Cotton producers throughout the U. S. averaged \$21,000 a year in deficiency payments. Our cotton producers had a lot of catch-up to do, and they are not going to be getting as much in payments as producers in the rest of the country. Nevertheless, we did manage to get, I believe, 53,000 acres of cotton in for transition payments.

On Slide 6 if you look from 1990 through the year 2002, the first five bars there show you the deficiency payments under the 1990 Bill. The last seven bars show you the transition payments for Virginia from 1996 until 2002. The reason that we actually are getting more, quite a bit more, on average in transition payments than we got in deficiency payments, is that we went from a low level of enrollment in the 1990 program (our traditionally low level for commodity program enrollment) to 89 percent of all the base acres enrolled. Overall in Virginia, we are getting 50 percent more money under the 1996 Act in transition payments than we got in deficiency payments. It is about \$18 million on average per year over the life of the Act.

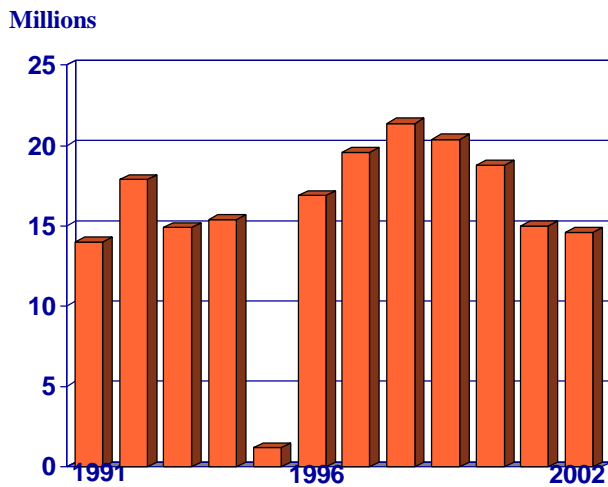
Slide 5.

Virginia 1996 Transition Payments

	Acres Enrolled	1st year payments
Corn	527,600	\$9,238,000
Wheat	270,700	\$7,358,000
Barley	72,800	\$1,069,000
Sorghum	17,800	\$223,000
Oats	10,800	\$13,000
Cotton	52,900	\$2,014,000

Slide 6.

Virginia payments under 1990 and 1995 Farm Bills



When the Conservation Reserve Program (CRP) was instituted (Slide 7), a lot of land in the Midwest and the High Plains went into the program that was relatively productive land and not particularly environmentally sensitive. The conservation programs have been very seriously refocused now with an environmental focus, not trying to take just any land out of production, but trying to take *environmentally sensitive land* out of production. There has also been a growing emphasis in USDA on the cost-effectiveness of those conservation programs. I think those are the two themes that need to be thought about in terms of conservation programs. If you think that conservation is a small element in the 1996 Farm Bill, remember that there were \$2.5 billion authorized in conservation programs for the 1996 farm program. That is not small change.

Slide 7

Conservation Programs

- ◆ **Environmental focus**
- ◆ **Cost effectiveness**

The major conservation programs (Slide 8) are the CRP (the Conservation Reserve Program), the Wetlands Reserve Program, and now the new Environmental Quality Incentives Program or EQIP. I am going to talk more about EQIP than the other programs. There are also additional programs that I will not go into, like the Wildlife Habitat Program. I understand that we may see some funds come into quail hunting for habitat rehabilitation in Virginia. I am sure all the hunters in Virginia will be happy to see that happen.

Slide 8

Conservation Programs

- ◆ **Conservation Reserve Program (CRP)**
- ◆ **Wetlands Reserve Program (WRP)**
- ◆ **Environmental Quality Incentives Program (EQIP)**

Let me talk first about the Conservation Reserve Program (Slide 9). It has been refocused to only the most highly erodible and environmentally sensitive land. In its criteria for acceptability, however, wildlife habitat has now been included. Congress capped the enrollment of CRP at any one time at the 36.4 million acres which is what it was at the beginning of this Act. USDA projects only about 28 million acres in the program at any one time throughout the 1996 Farm Bill. There is no automatic extension of current CRP contracts; that is going to make a big difference for the relatively productive land in the Midwest and High Plains.

Slide 9

Conservation Reserve Program

- ◆ **Highly erodible and environmentally sensitive land**
- ◆ **Wildlife habitat included**
- ◆ **Max 36.4 million acres through 2002**
- ◆ **No automatic extension of current CRP contracts**

There are the eligibility criteria for the CRP land: You have to have an erodibility index greater than eight and then several other very targeted environmental criteria to be accepted for CRP permits (Slide 10).

Slide 10

CRP (cont.)

- ◆ **Eligibility criteria:**
 - **Erodibility index > 8**
 - **Conservation priority areas**
 - **Subject to scour erosion**
 - **Cropped wetlands**
 - **Filterstrips and riparian buffers**
 - **Salinity-impaired land**
 - **Land in wildlife habitat, wellhead areas, etc.**

There are about 7 million acres that are currently in the program that will not be eligible for new contracts (Slide 11). That land will come back into production and have an impact on us in Virginia in the total level of production of wheat and feedgrains and the subsequent impact on prices in the market. There is not only a periodic enrollment of CRP acres, but there is also a continuous sign-up for certain conservation practices like grass waterways, and filter strips. Anybody can make a bid at any time for these kinds of practices. There are also the regular signups, and the next one will occur in early 1997.

Slide 11.

CRP (cont.)

- ◆ **Up to 7.2 million acres currently enrolled may be eligible for re-enrollment**
- ◆ **Continuous sign-up for conservation practices**
- ◆ **Next regular sign-up in early 1997**
- ◆ **Payment rates based on county rental rates, with incentive for enrolling conservation practices**

The big hang-up for us in Virginia—we only have about 7,000 acres in the CRP in Virginia—has been the way that USDA calculates the acceptable bid rates. Our rental rates as USDA calculates them are quite low. They base their maximum bid rates on local rental rates, the types of soils that are available in the area, and the predominant crop. What we find for Southside Virginia, for example, where there are more acres of corn than tobacco, is that USDA calculates the maximum CRP bid on the profitability of corn rather than the profitability of tobacco, so that means our maximum rental rates are extremely low. There may be some change in that in the future.

The Wetlands Reserve Program (WRP), the next major conservation program, returns farmland to wetlands (Slide 12). Of its maximum 975,000 acres, WRP has to go about one-third into permanent easements, one-third into 30-year easements, and one-third into cost-share agreements. This program provides for permanent easements. USDA will pay 100 percent of restoration costs, it will pay 100 percent of either the appraised value, the cap on payments, or the owner offer for the permanent easements.

I learned from talking to Natural Resources Conservation Service (NRCS) the other day, that it may be possible for some of our producers in eastern Virginia to enroll buffers on either the 30-year or the permanent easements and be in compliance with the Chesapeake Bay Act at the same time that they actually get money from the wetlands program.

The next major program is the Environmental Quality Incentives Program, EQIP (Slide 13). This program provides education, technical, and financial assistance for structural practices and management practices. Structural practices are things like manure management facilities. Management practices are things like manure management, nutrient management, IPM. Both types of practices are available for funding. EQIP tries to setup the structural practices at least five- to ten-year

contracts with the producers. You have a limit of \$10,000 per year per producer and \$50,000 over the course of the program.

Slide 12.

Wetlands Reserve Program

- ◆ **Return farmland to wetlands**
- ◆ **Maximum 975,000 acres, 1/3 currently enrolled**
- ◆ **1/3 permanent easements, 1/3 30-year easements, 1/3 cost-share**

Slide 13

Environmental Quality Incentives Program (EQIP)

- ◆ **Education, technical and financial assistance**
- ◆ **5-10 year contracts for natural resource problems**
- ◆ **Limits of \$10,000/year, \$50,000 total**

They attempt to focus the delivery of the EQIP program on so-called natural resource priority areas (Slide 14). The priority areas will, in the future, be determined by a bottom-up process in which the conservation district will evaluate resource problems in the area and rank them. They prioritize problems and forward their suggestions to the state. A technical committee of NRCS will then forward those to the national level. The national level, again USDA, will evaluate these things for environmental benefits and cost effectiveness and make a decision on the priority areas. The priority areas will receive 75 percent of the total funding of the program. That funding, a substantial \$200 million a year, is not a small amount. The non-priority areas will get at least 25 percent of the funds.

The priority areas for this year in Virginia are existing programs. There are 12 areas, most of them in livestock. Most of them are in the Valley region, but also all of the Eastern Shore has been designated as a priority area for this year. The target nationwide is to have one half of the total budget go to livestock and one half go to cropping areas. In Virginia, we are submitting over two-thirds in livestock areas and that is very consistent with the way that our agriculture breaks out. Although \$200 million a year total funding was approved, this year only \$130 million has actually been appropriated.

Slide 14.

Environmental Quality Incentives Program (EQIP)

- ◆ **'Large' confined livestock operations ineligible**
- ◆ **Priority areas get 75% of funds**
- ◆ **\$200 mil./year, 1/2 to livestock sector**

OVERVIEW OF VIRGINIA AGRICULTURAL ECONOMY

What you have up here now (Slide 15) is an average of the cash receipts and a ranking of our major commodities in Virginia from 1991 to 1995. These 12 commodities make up 84 percent of all of our cash receipts in Virginia. We have a diversified agriculture and these 12 products make up a lot of it. The broilers and turkeys have been growing fast at the same time cattle and milk have been declining. I will talk about several of these commodities as I go through the next slides. You can see as a percentage of the total receipts, we have a fairly diversified range of products here, about two-thirds from livestock enterprises, about one-third from cropping enterprises.

I wanted to look at a geographic focus of production (Slide 16). You see in the sales ranking of the top ten counties in Virginia that Rockingham stands out a little prominently: three times as much as the next highest county. These 10 counties make up 45 percent of our \$2.2 billion in agricultural sales per year. The top 4 counties in the Valley, Shenandoah, Rockingham, Page, and Augusta, make up 30 percent of all of Virginia's cash receipts. We have relatively geographically concentrated agricultural sales in Virginia.

Slide 15.

Cash Receipts of Principal Virginia Commodities 1991-95

	Average (\$million)	Pct of Total
1 Broilers	\$361.0	16%
2 Cattle&calves	\$331.2	15%
3 Milk	\$275.3	13%
4 Tobacco	\$182.2	8%
5 Turkeys	\$157.7	7%
6 Greens & Xmas Trees	\$131.3	6%
7 Soybeans	\$81.3	4%
8 Hogs	\$74.6	3%
9 Peanuts	\$72.8	3%
10 Eggs	\$66.6	3%
11 Corn	\$51.5	2%
12 Wheat	\$44.6	2%

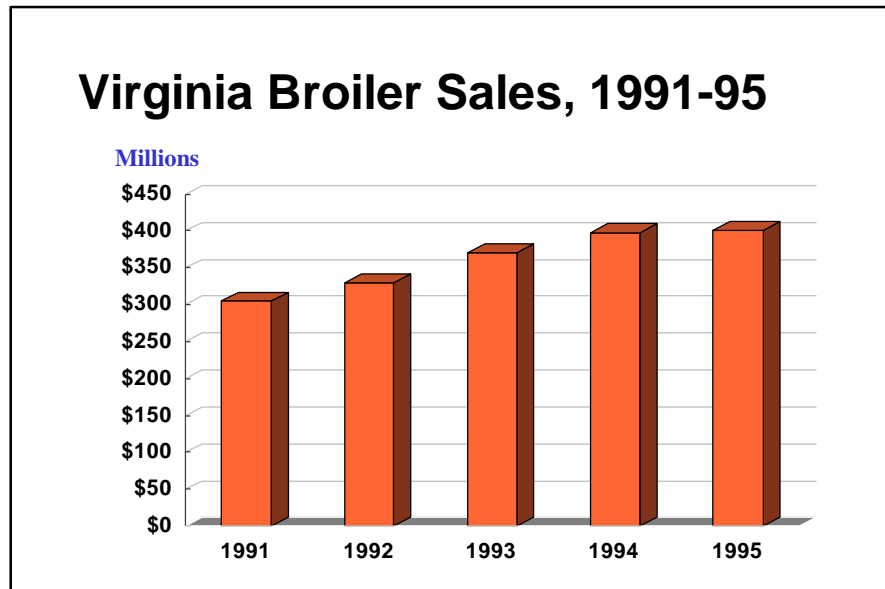
Slide 16.

County 1995 Sales Rank

	<u>Sales (millions)</u>
① Rockingham	\$371
② Augusta	\$111
③ Accomack	\$72
④ Page	\$69
⑤ Southampton	\$56
⑥ Pittsylvania	\$56
⑦ Shenandoah	\$56
⑧ Washington	\$48
⑨ Franklin	\$40
⑩ Amelia	\$39

Here are the broiler sales from 1991 to 1995 (Slide 17). We had a little bit of stabilization in 1995, but in general, the broiler production has been going up by 5 to 8 percent per year. Rockingham County has 38 percent of all the broiler sales in the state. The four Valley counties have more than two-thirds of all the broiler sales in the state. If you put the Valley together with Amelia and Buckingham counties, you have 80 percent of all of our broiler production. Again, we have some geographic concentration in those broiler sales.

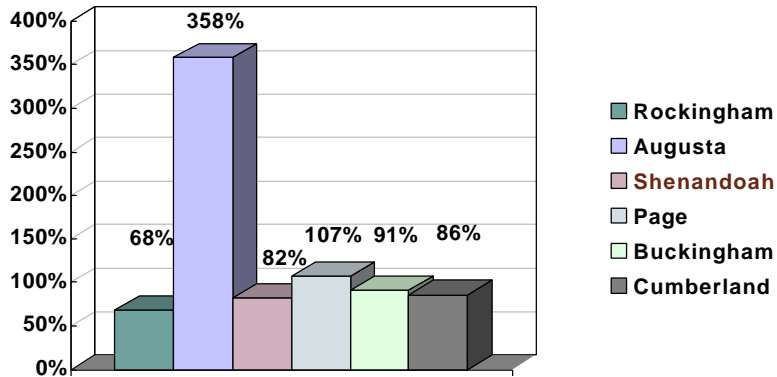
Slide 17.



I wanted to put up one slide showing the change in the broiler sales from 1982 to 1992 census (Slide 18). We have 5 to 8 percent, or maybe even 10 percent, per year growth for some counties. Augusta had a giant leap of three times as much, over the ten years, in broiler sales. They really sky-rocketed. We have not only the concentration of production in a very few counties, but we also have most of the growth occurring in those Valley counties.

Slide 18.

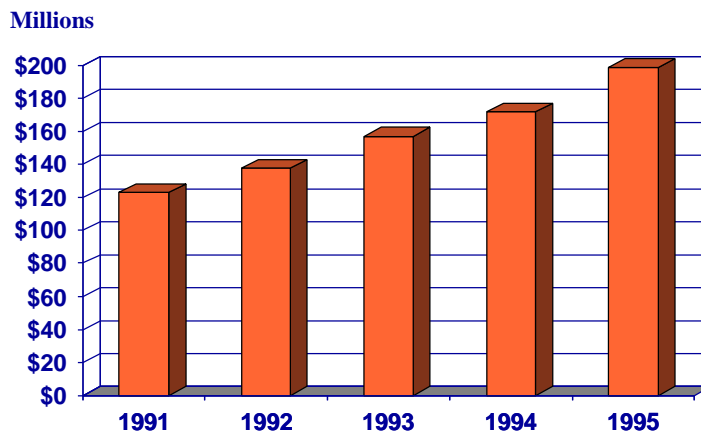
Change in Broiler Sales, 1982-92



Turkey sales have gone up steadily (Slide 19). I heard that we have had some decline this year because of the feed crisis, but turkey sales have increased at a rate of 5 to 8 percent per year since prior to 1990. Ninety-seven percent of all of our turkeys come from the Valley, and have come from the Valley as far back as I could look in the agricultural census.

Slide 19.

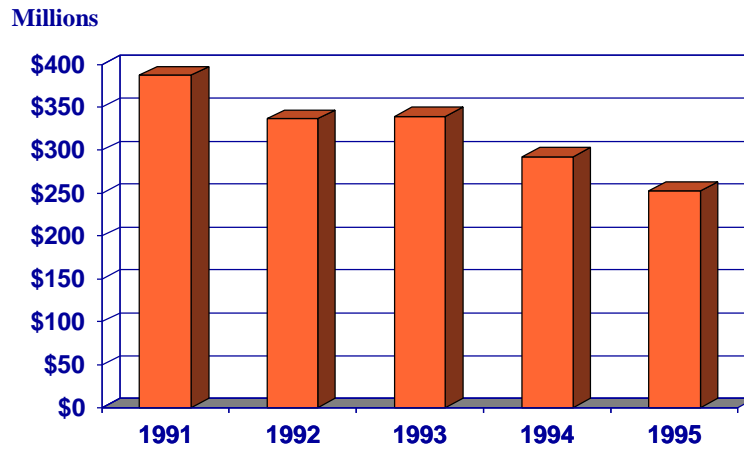
Virginia Turkey Sales, 1991-95



We have had a steady decline from 1991 to 1995 in cattle (Slide 20). I am not going to say too much about this because you will hear more from Wayne Purcell later this afternoon.

Slide 20.

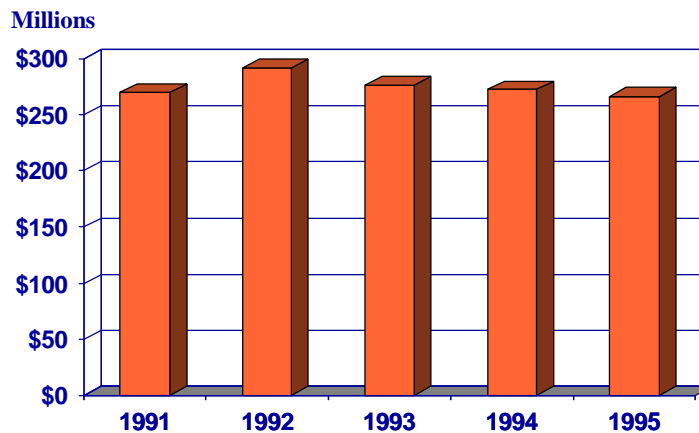
Virginia Cattle and Calves Sales, 1991-95



This one deals with milk sales (Slide 21). We have a great price right now, but in general, the milk sales have shown a gradual decline. We have an increasing concentration of the dairy industry in the Valley. We have severe stress on the dairies in northern Virginia, in Culpeper County and Fauquier County. A lot of those people went out of business when we got into the feed crisis, but the long term look at the dairy industry, and Wayne will tell you about that again this afternoon, is relatively favorable given the comparative advantage of the dairy industry in Virginia .

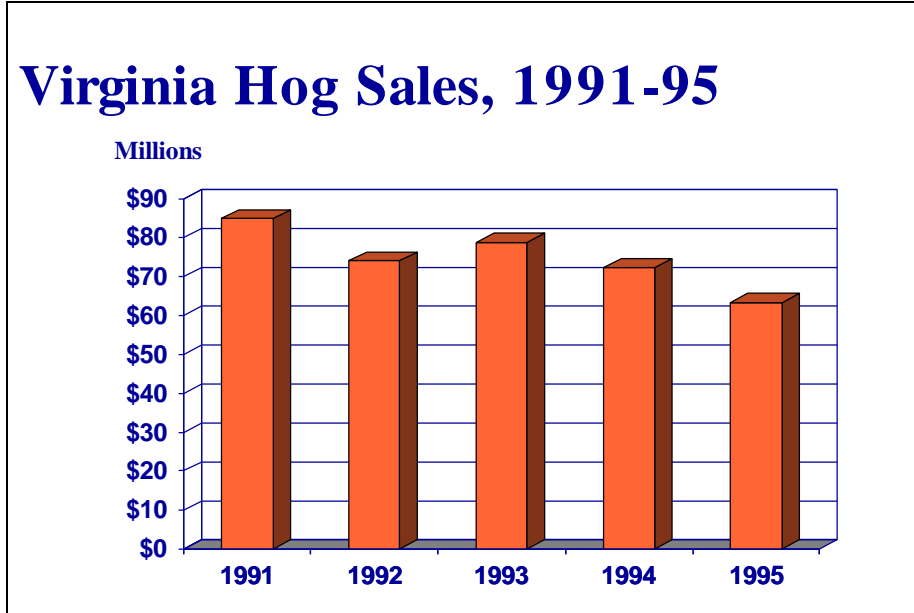
Slide 21.

Virginia Milk Sales, 1991-95



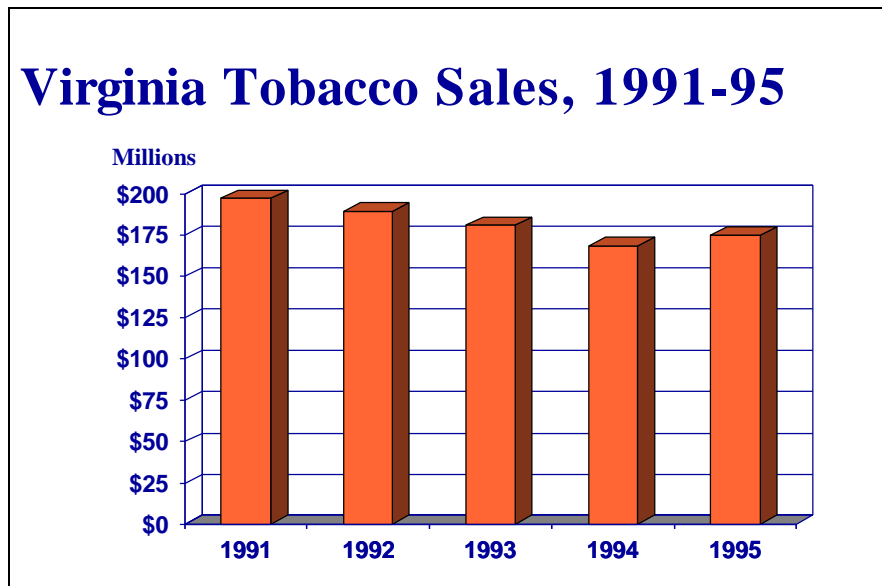
Hog sales have shown more than a gradual decline (Slide 22). The number of hogs has decreased by a large percentage in most years, and the decrease is showing no signs of tapering off. The future of the hog industry in this state depends a lot upon changes in the environmental regulations, some of which have been made, and changes in the industry structure.

Slide 22.



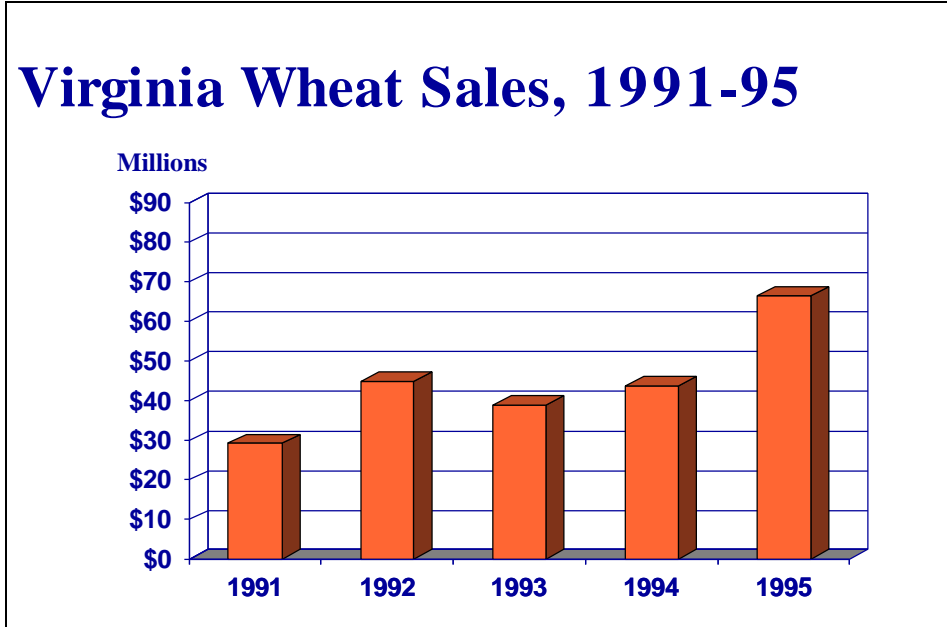
We also have a gradual decline in tobacco (Slide 23). Tobacco is taking some hits, exports have buoyed it up considerably, but it still faces the long term health concerns that show no signs of tapering off. Southside, right now, lives and breathes on tobacco and the impact on that region will be substantial depending upon what happens to tobacco.

Slide 23.



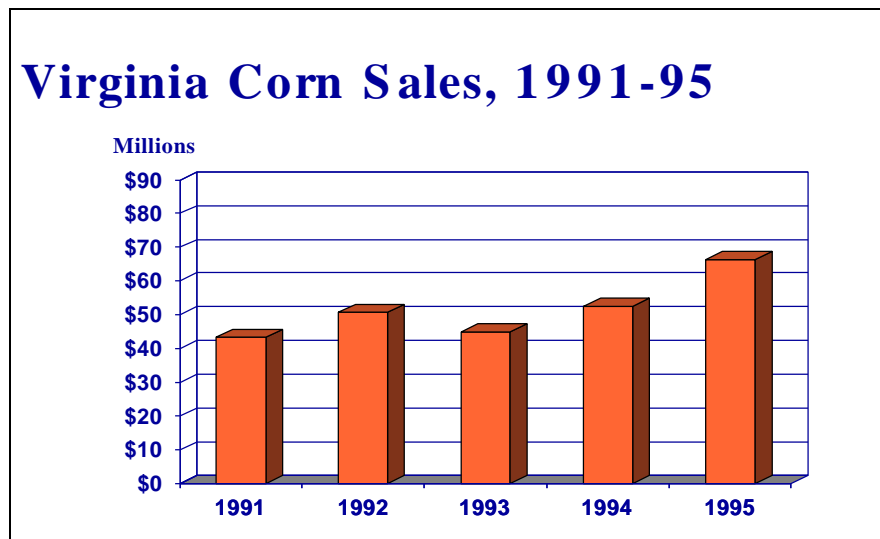
Our bright star on the cropping side is wheat sales (Slide 24). Wheat has been an extremely good crop for us. It is an example of the benefits that are possible from the cooperation among industry, agricultural producers, and universities. Dan Brann and a lot of the people in this room have done a tremendous amount to make wheat a very competitive product for us in Virginia. The competitive advantage that we have combined with double crop soybeans has been helping us in wheat.

Slide 24.

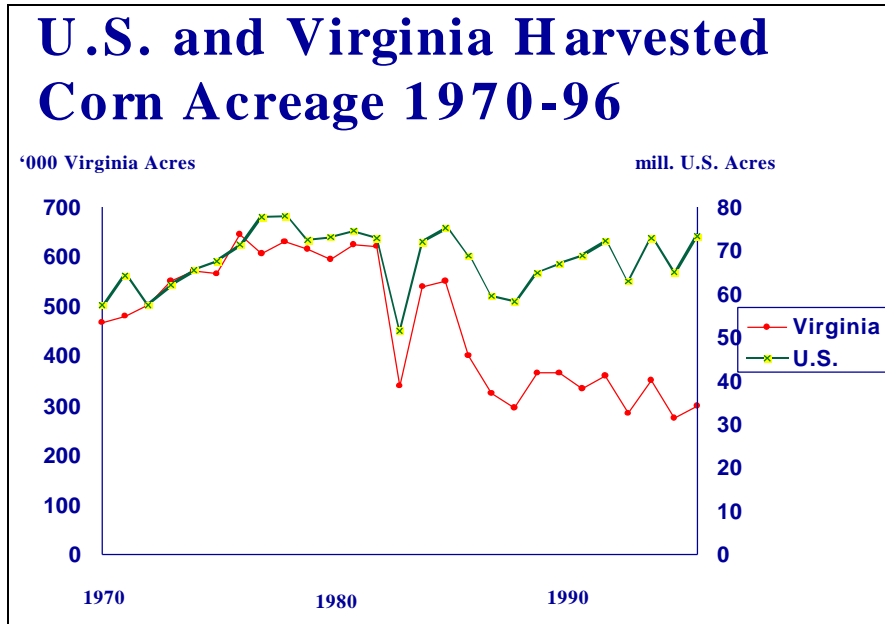


Corn sales have not been too bad in the last few years, they have been moving up—1993, 1994, 1995 (Slide 25). They are probably going to be going up similar amount with the 1996 crop. This is one of the commodities that both Wayne and David Kenyon will mention this afternoon. You will be hearing this all day: the future of the corn industry in this state has a tremendous impact on the livestock industry, and how corn will go is certainly up in the air. The number of acres that we can maintain in Virginia is a big question. The bolder line with the “X’s” is the millions of U.S. acres from 1970 to 1990 (Slide 26). The other line with the circles is Virginia acres from 1970 to 1990 and we never pulled out of the slump in the mid-80’s. All of the U.S. had a slump in the mid-80’s during the farm crisis, but it has been moving steadily upward every year since. Our acreage has not moved up. We harvested 300,000 acres this year; we are only at half of the previous high in 1976. The outlook for acres is an extremely important question for the Virginia corn and livestock industries.

Slide 25.

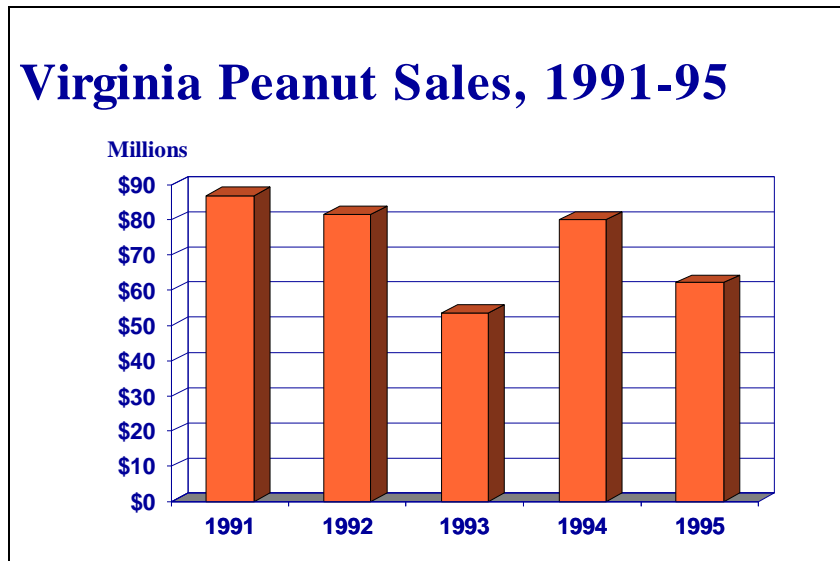


Slide 26.



Virginia peanuts sales from 1991 to 1995 have been gradually going down (Slide 27). We have had the cuts in the quota support prices and we have had cuts in other elements of the peanut program that have had an impact on profitability. The bright spot for peanuts has been that we have continued excellence in our quality and in our yields. We have been able to add cotton as a profitable element of the rotation with peanuts.

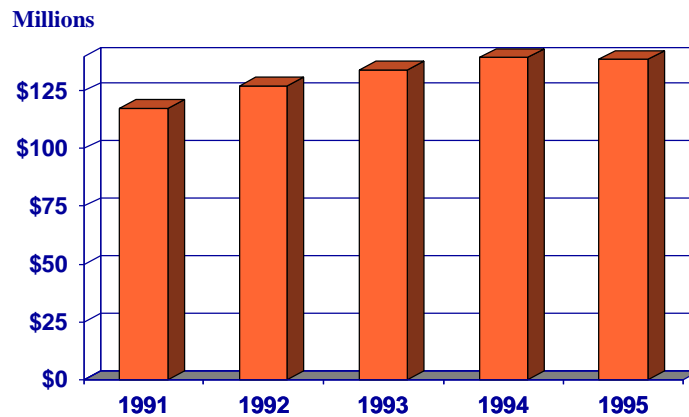
Slide 27.



Of the non-traditional agricultural commodities, nursery and greenhouse and Christmas trees have had a reasonably nice growth for us (Slide 28). They were number six in our cash receipts from 1991 to 1995 and show no signs of tapering off. They have been steadily growing sectors of our agricultural production, and as we continue to urbanize, these sectors are going to be increasingly important.

Slide 28.

Virginia Nursery & Greenhouse Sales, 1991-95



The big question (Slide 29) in all this overview of the agricultural economy is, “Which sectors of Virginia’s agricultural economy will be able to compete in the new market place?” Here is David Kenyon’s message this afternoon, “You wanted a free market. The 1996 Farm Bill gave you a free market. Now, can you survive in it?” That is the question for a lot of Virginia’s agricultural economy.

Slide 29.

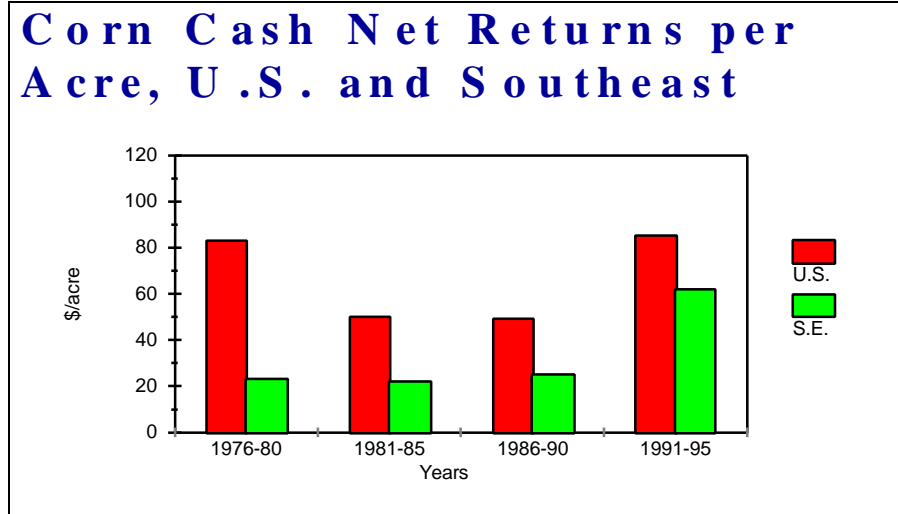
Big Question:

**Which Sectors Of Virginia’s
Agricultural Economy Will Be
Able To Compete In The New
Marketplace?**

We will take a look at a few of the data sets that tell us something about the competitiveness of some enterprises in Virginia. I want to start this out by saying that only the grossest level of data analysis is possible on production and net returns for commodities because the data series have been absolutely devastated with budget cuts in USDA. It is almost impossible to get any sort of costs and returns that have the level of specificity that you would like to see for an analysis of Virginia commodities. In this case, all I can do is compare the southeast U.S. with the average in the U.S.

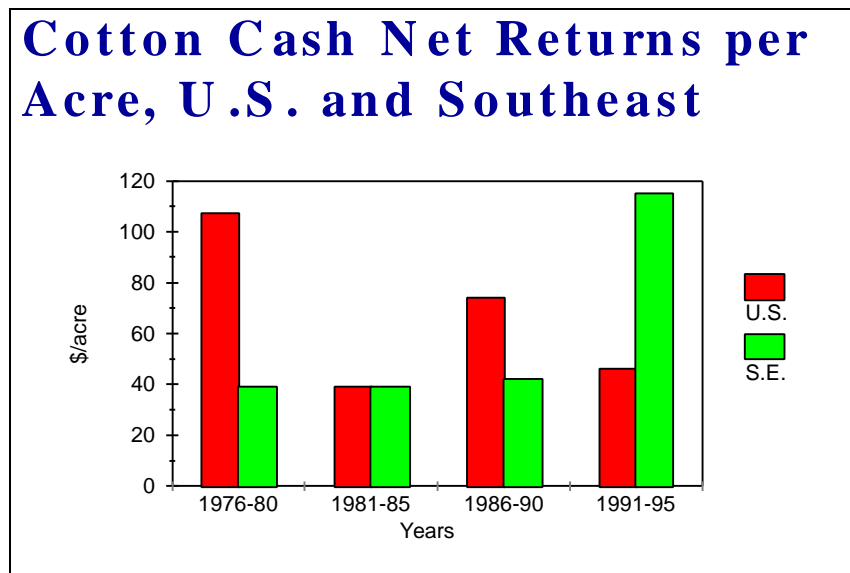
You see corn cash net returns without any government payments for various periods from 1976 to 1995 (Slide 30). You see our corn cash net returns in the whole southeast are consistently 20 to 30 percent below the average for the U.S. That does not mean that any individual producer cannot produce at least as well as anybody else in the U.S. But our corn sector as a whole has a lot of acres that, with great difficulty, are going to be competitive in the new marketplace.

Slide 30.



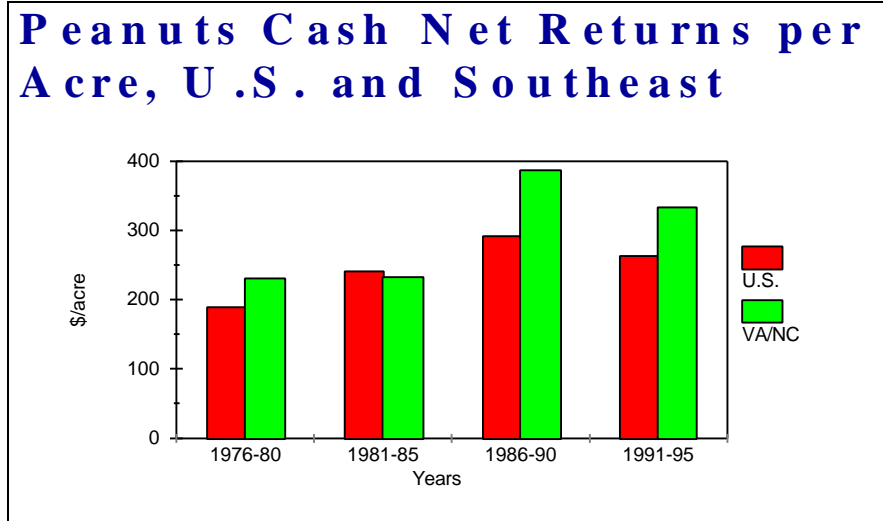
Cotton is a much brighter picture for us (Slide 31). Again this is the whole southeast U.S., but take a look at the profitability of southeast cotton compared with the average of the U.S. in the 1991-1995 period. Because of its combination with peanuts in southeast Virginia, cotton is a crop that has fit into rotation and profitability plans in an excellent fashion. I think that the biggest challenge for us in cotton in this state is how cotton will fit with cash grain crops as it moves north of the James River and into the Northern Neck, and how those producers are going to accommodate the change of adding cotton into rotations.

Slide 31.



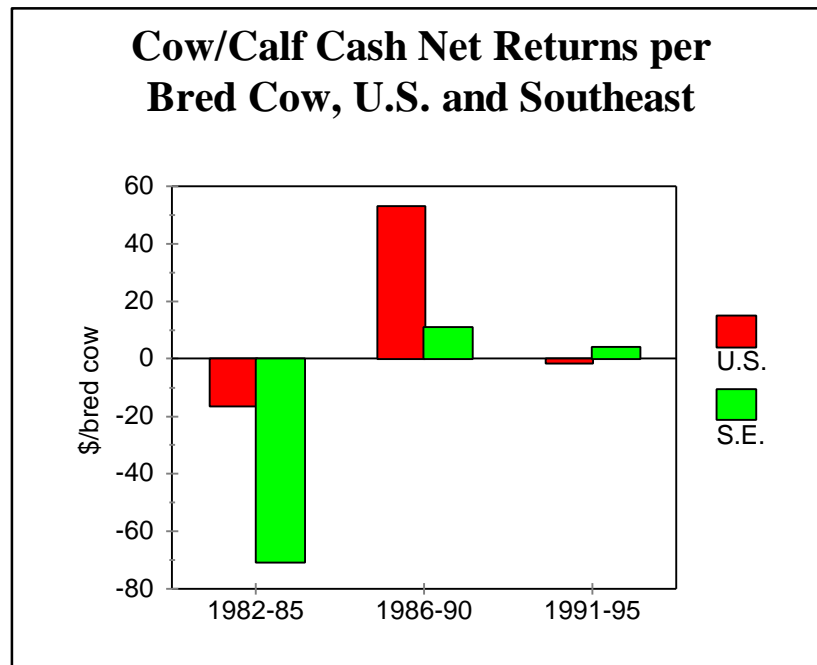
Take a look at peanut cash returns (Slide 32). Peanut net cash returns in Virginia and North Carolina are consistently above the U.S. average. Our producers are the best around. Our producers are extremely efficient; they are doing a good job of improving yields and maintaining quality. We will be well-off as the peanut program gradually lowers its level of support and much better off than some of the rest of the U.S.

Slide 32.



The next slide that I have is for the livestock industry (Slide 33). Cow/calf cash net returns are the only data series available. It shows cow/calf cash net returns per bred cow for the U.S. and the southeast. It is not a very encouraging graph and is the only one with a negative axis on it. You will see that we are a little bit above the U.S. average in the 1991-1995 period. The 1991 to 1995 period is one in which average returns were about zero.

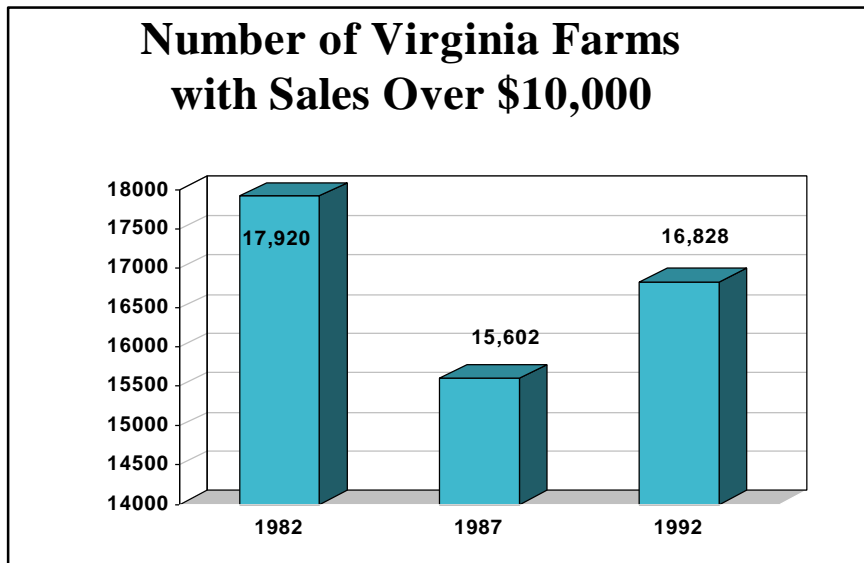
Slide 33.



Non-economic factors

Let me move on now to some non-economic factors that I would like you to take into account as you think about the future of Virginia agriculture (Slide 34). These are the number of Virginia farms with sales over \$10,000. Ten thousand dollars is not very much, but I wanted to eliminate those tiny farms that are included in the agricultural census. Although we have lost a considerable number of overall farms from 1982 to 1992, we have actually gone down only about 1100 farms from 1982 to 1992 on those farms that have over \$10,000 in sales. Some of those existing smaller farms got pushed up into a higher level of sales by either price inflation or by actually producing more than they had in the past. Although the number of farms we have and the declines that we see are always a concern, we can be somewhat comforted by the fact that the rate of decline has not been exactly precipitous in the last ten years. We are also losing, however, a considerable amount of cropland every year to urbanization.

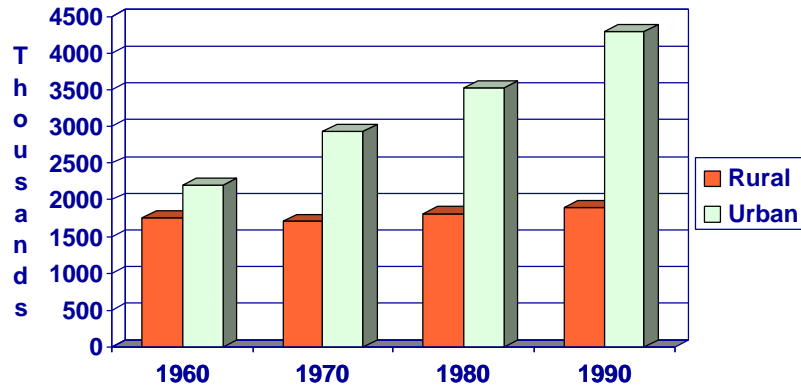
Slide 34.



I want to point out that population growth and urbanization are questions you have to think about all the time (Slide 35). This is a graph of the rural and urban population of Virginia in 1960, 1970, 1980, and 1990. Look at how the proportions have changed, and look at what has happened to rural population over that period. We have decreased from 1960 when 44 percent of Virginia's population was rural, to 1990 when only 30 percent of the population was rural. There are a lot more urban folks out there than rural folks. Our farm populations since 1970 have decreased by two-thirds. If we had had this meeting in 1970, it would have been a lot bigger. In 1990, it was estimated that Virginia's population was 6.2 million people. In the year 2010, it may be as high as 8.2 million people. You will have a lot more neighbors in the year 2010 than you have right now. I am not so sure that you are happy with the number of neighbors that you have around your farms right now. But this urbanization question is one that is going to be with us for a long time to come.

Slide 35.

Virginia Rural/Urban Population, 1960-90



Take a look at projected population increases for our top ten agricultural counties (Slide 36). Only three of those counties show an estimated decline in population: Pittsylvania, Southampton, and Washington counties. Many of our largest agricultural counties in Virginia have double-digit population inflation projected through the year 2010. I do not mean to be particularly alarmist about this, 11 percent is not a particularly high increase in population from 1995 to 2010, but it still emphasizes the issue that you will have more neighbors in your rural areas in 2010.

Slide 36.

Projected Population Increase 1995-2010

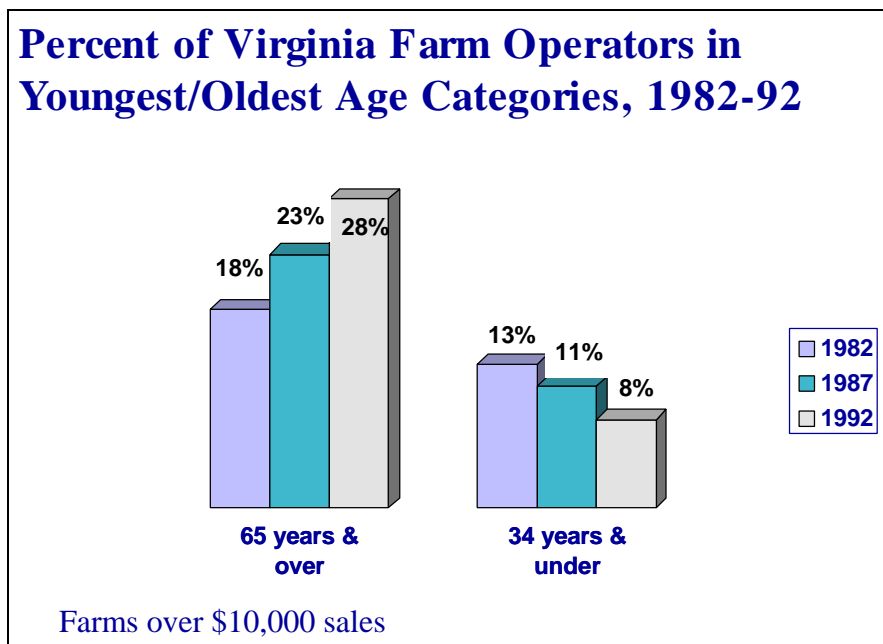
1 Rockingham	+ 8.6%
2 Augusta	+ 8.2%
3 Accomack	+ 1.6%
4 Page	+ 11.2%
5 Southampton	-2.1%
6 Pittsylvania	- .3%
7 Shenandoah	+ 14.1%
8 Washington	-1.4%
9 Franklin	+ 10.1%
10 Amelia	+ 10.0%

Some of our major agricultural counties in Virginia have a much more acute story than I am showing you on this slide. Isle of Wight is the eleventh most important agricultural county in the state. It has a 23 percent projected population increase by 2010. Number 12, Fauquier has a 30 percent increase projected by 2010. Number 13, Suffolk has 15 percent; number 19 Loudoun County, a 35 percent

projected increase in population by 2010. The population increase is something with which Virginia producers always have to live.

I did not know the ages of farmers until I looked up the numbers (Slide 37). I wanted to show them to you because they really impressed me. In 1982, of our farm operators who sold more than \$10,000, 18 percent were over 65. By 1992, it had gone up to 28 percent of our farm operators over 65. On the other hand, among the younger farm operators, we went down from 13 percent to 8 percent. Our mean age of farm operators in 1982 was 52 years. By 1992, it had already gone up to 55 years. This is an extremely serious concern. We have approximately 1300 farm operators out there according to the census definition who are under 34 years old—1300. We could get them all in a large room. There are some reasons why we can expect that number to actually be much higher. There are a lot of young people in farming that are now employees who would not have been counted as farm operators in the census. Nevertheless, this is a major concern. Who is going to replace some of you who are ready to retire?

Slide 37.



This is a slide (Slide 38) that is purposely filled with meaningless data. I just wanted to emphasize to you that there will be continuing environmental concerns. It is not something that is going to go away because we are able to do a good publicity job for Virginia agriculture. There will be factors to deal with like carbon monoxide standards and sulfur dioxide standards and nitrogen dioxide standards, that you probably do not even know how they are associated with agriculture, that are going to be very important in the future. The Chesapeake Bay Agreement is one that we have had to deal with for a long time. The agreement is that nitrogen and phosphorus loadings to the Chesapeake Bay will be reduced by 40 percent by the year 2000. Environmental concerns are here to stay.

Slide 38.

Continuing Environmental Concerns

- ◆ Carbon Monoxide 10,000 mcg/m³
- ◆ Sulfur Dioxide 365 mcg/m³
- ◆ Nitrogen Dioxide 100 mcg/m³

Chesapeake Bay Agreement

- ◆ N and P loadings reduced 40% by year 2000

OPPORTUNITIES AND CHALLENGES

There are opportunities and challenges that I see for different sectors of Virginia's agriculture (Slide 39). The production challenges for corn are obvious. We have to be able to produce more corn at less cost in order to keep the sector competitive. In wheat, we are doing extremely well, better than the national average. In barley we can certainly stand to see the kinds of increases that we have seen in wheat in the last 10 to 15 years. Those are major challenges for production and yields in those areas.

Slide 39.

Opportunities & Challenges

	Corn	Sm. Grains	Soybeans
Production	C	O	
Local research	C	C	C
Cost/price	C		
Rotation		O	O
Market development		C	

For localized research all across the board, as many as you know, we have a third less people, we have like about a third less budget at the university than we had six years ago. The opportunities and

demands for localized research for many of these commodities are absolutely acute if we are going to be able to adjust to the new marketplace.

The cost-price squeeze is particularly obvious in corn. The tendency on the price of corn is for it to go toward the cost of production of the efficient Midwest producer. I originally come from the Midwest and I would say that it is somewhere in the \$2.00 to \$2.50 range. How many people in Virginia right now can produce corn and survive at that price level? That is a major concern for corn.

We have a lot of opportunities in small grains and soybeans, crops that fit extremely well into our crop rotations. Dan Brann is now experimenting with the possibility of being able to turn over two double crops in two years: wheat and double crop soybeans, and barley and double crop soybeans. If that works, we will continue to see a good return per acre over the course of two years in rotational crops.

The market development issue which I put up there really refers to barley. We produce barley very well. We cannot sell it. That is we do not have a reasonable price available for barley when you consider its feed value. It is just not been as marketable as it ought to be. I think that David Kenyon and Wayne Purcell will be talking more about it this afternoon. I think that the marketability of barley is going to be extremely important for some of our producers., and we may need aggressive market development work for it.

Obviously, I put cotton and peanuts up there together since they mostly have been in Virginia this year (Slide 40). By the way, we went down to 102,000 acres this year in cotton. We dropped about 5,000 acres of cotton from last year. Local research for cotton and peanuts is going to be more and more important. There is on-going research looking at ways to institute sustainable practices for cotton production.

Slide 40.

	Cotton	Peanuts
Local research	C	C
Urbanization	C	C
Water Quality	C	C
Cost/price		C
Rotation	O	O

There is some concern for cotton and peanuts in some of the counties. In some of the counties in southeast Virginia, agricultural production is standing in the way of the bulldozer of urbanization. Urban residents continuing to reach out into rural areas may be a strong challenge to producers in the

future. Both of these commodities are intensive pesticides users and are going to have serious challenges from water quality.

The cost-price squeeze is going to continue to be important for peanut production. We managed with a very good peanut crop this year to stay even with where we had been even though the quota had been lowered. But it is going to be a continuing struggle for peanut producers for the next few years to maintain similar returns.

These two crops together have great opportunities for rotation with each other. We are not likely to lose much acreage of either one of these crops, no matter what the market situation, because they fit so well together. As long as we do not get a tremendous hit in peanuts at the same time we get a hit in cotton, then one of them will tend to even out the bottom line of the other.

As we move into the livestock enterprises, demand will be a challenge for each one of the livestock sectors (Slide 41), but in very, very different ways. In beef and dairy we basically have stagnant demand and the biggest challenge for them will be in dealing with ways of reinvigorating consumer demand—through new product development or maybe getting into the ready-to-eat foods.

Slide 41.

Opportunities & Challenges				
	Beef	Dairy	Poultry	Hogs
Demand	C	C	C	C
Local research		C		
Cost/price		C		
Scale/Structure		C		C
Farm policy		C		

In poultry and hogs the challenge is not of making those kinds of adjustments because poultry has been finely attuned to consumer demand for a long time, and pork is doing better. The challenge for poultry is in simply meeting consumer demand, being able to expand fast enough for what seems to be insatiable consumer demand for 5 to 7 percent more broilers every year, at constant or even increasing prices.

Local research in dairy is a challenge because we have a continuing squeeze on dairy production. We are okay with the prices we have right now, but as soon as they come back down—and they will—we will be in a continuing profitability crisis with dairy. The challenge for local research in some cases will be for producers increasing the use of grazing. The wonderful grassland resources that we have in this state can be used to lower costs of dairy and hence make it more profitable. The cost-price squeeze is in place in dairy.

The scale and structure of production is a very important question for dairy and it is a question for hogs. In dairy we have the questions, “How fast are we going to increase herd size?” and, “How fast

will we have to increase our technology level?" We and everybody else are playing catch-up with the Californians at this point. It is clearly a question of who is going to survive and what states are going to survive in producing dairy products in the future. Wayne will be talking more about dairy this afternoon. The scale and structure in hogs makes a difference for us in Virginia because we have relatively little of the North Carolina-style heavily integrated, large scale operations in Virginia. If we can call some processing capacity back into Virginia, if we can call some of the integration that we have seen in North Carolina back into Virginia using the new elements that have been pushed by the Allen administration to get those back, we might have an opportunity to bring hog production back in this state. It can be important to our rural communities.

The farm policy, that is the government policy toward support, and what the future will be is still somewhat in debate for dairy. As long as we see what is written out in the 1996 Farm Bill, Virginia dairy producers will be able to hold their own. If we see a continuing move towards elimination of any involvement of government in agriculture, it may become more difficult for Virginia producers. There are a few other opportunities and challenges that I wanted to put up here (Slide 42). Water quality, of course, is an important concern for all of these livestock and poultry enterprises. Water quality is an issue we need to deal with where we have the concentration of livestock enterprises, particularly in the Valley where we also have an increasing population. We have a lot of opportunity, particularly in poultry and hogs with the integrated type of production, for part-time producers.

Slide 42.

Opportunities & Challenges				
	Beef	Dairy	Poultry	Hogs
Water quality	C	C	C	C
Part-time			O	O
Input costs		C	C	C

We have a tremendous number of part-time producers, and we can tap more of those people. In some cases we may be able to see some small-time tobacco producers in Southside add hogs to their production system.

We have a real challenge for input costs in dairy, poultry, and hogs as we saw in the last year as corn and soybean prices went up. The future of those livestock enterprises in Virginia hinges a lot upon the availability and the relative cost of feedstuffs. If we have a strong competitive disadvantage in Virginia in the production of the feedstuffs, it makes it that much harder on our livestock industries.

A few other commodities, potatoes, tomatoes, apples and tobacco, are important commodities for us (Slide 43). They have a little bit different picture. Labor is an extremely important challenge for tomatoes, apples, and tobacco, and it may very well be for potatoes also. Trade policy for exports and imports will be very important in these commodities. The ability to generate a good crop of apples year after year will be extremely important. The size of farm required for the new production technology will also be important in apples. In the extreme northwest of Virginia, urbanization is a challenge to the apple industry as we see high rates of population increase. Of course, all of these commodities are going to also be challenged by water quality concerns.

Slide 43.

Opportunities & Challenges				
	Potatoes	Tomatoes	Apples	Tobacco
Labor		C	C	C
Trade policy	C	C	C	C
Production			C	C
Urbanization			C	
Water quality	C	C	C	C

They call economics “the dismal science.” As I look through these, I realized I said challenges and opportunities, I sure had a lot more C’s than I did O’s but I do not mean to say the future is bleak.

The critical economic and political factors for Virginia in the 1996 Farm Bill are the CRP and 0/92 acres and what will happen to those acres (Slide 44). If those come back into production in the size that you are going to hear about this afternoon, it will put severe strain on wheat and feedgrains production in this state and that will, in turn, make the success of our livestock and poultry industries more difficult. The return of these acres will be a key factor in the location of production within the state and within the United States and in the total quantity of production. If we see some of the increases in acreage, if we see 85 million acres of corn in the U.S. next year, we are obviously going to have a lot more serious problem in competing. The variability of production is going to be a serious concern from year to year. We no longer have the stabilization stocks that the government used to hold

or that farmers use to hold for the government. We will see the variability in production and the variability in prices increase, without a doubt.

Slide 44.

Key Economic/Political Factors for Virginia

- ◆ **CRP, 0/92 acres back into production**
- ◆ **Location, quantity, variability of production**
- ◆ **International trade**
- ◆ **Production & marketing management**
- ◆ **Politics of agriculture**

You have already heard an awful lot about international trade this morning so I will not mention any more about that.

Production and marketing management are key factors. You will hear “Minister” Purcell and “Minister” Kenyon this afternoon tell you about marketing management and how you have got to get on the program. I will not badger you.

The politics of agriculture will make a big difference in where we are going to be sitting in 2002. I wish I could tell you if we are going to have new farm bill legislation, either before or at 2002, that gives us back some of the elements of support that we had before 1996. It is anybody’s call so far as I am concerned. It depends upon the level of farm income in the United States. If prices go down to the basement and stay there, there will be political demand for support for agriculture. As it stands right now, what we may see is simply the dissolution of most of the support programs, and that would have serious impacts on the peanut industry and potentially on our dairy industry.

As I prepared this, I was reading some articles on *Progressive Farmer’s* homepage (Slide 45). I am sure most of you read the story they had about New Zealand farmers and the development of free markets in New Zealand as they cut out all government support. They asked New Zealand producers, “What did you do when there were no more government programs?” They said they cut inventories to the bone. They looked at every asset that they had—land, machinery, everything—and they asked, “Does it pay its own way? Is it profitable?” If it is not, then out the door. No matter whether they liked that tractor, no matter whether they liked to grow that commodity, it was out the door. They focused on consumer preferences. That was their bottom line—what consumers wanted out of their agricultural production. They focused on export markets. They trained themselves to be shrewd business managers and shrewd marketing managers. They regarded farming as a business. They said if farming is not profitable, they could not afford to do it. It is not a way of life, it is a business like any other.

Slide 45.

New Zealand Farmers & the Free Market

- ◆ **Cut inventories**
- ◆ **Sold off any unprofitable assets**
- ◆ **Focused on consumer preferences**
- ◆ **Focused on export markets**
- ◆ **Trained themselves to be shrewd managers**
- ◆ **Regarded farming as a business**

In conclusion, I wanted to mention a vision of agricultural success that I cannot claim authorship to (Slide 46). That vision of success was in a document in 1986 from the Agricultural Economics Department at Virginia Tech. It talked about challenges to Virginia agriculture, the prospective for the future, and a vision of agricultural success. I do not think that we can do any better today than to employ these same elements needed for success that we had ten years ago. Now we have even more need for an emphasis on sensitivity to consumer trends. We need to have an emphasis on progressive management practices, both production management and marketing management. We need to have innovative marketing techniques. We need to be able to forward price our products into the future. We need to lower our variability and our risk in marketing products. We need to be very aggressive in international markets. We need to have advanced scientific research. We need to have more cooperation between agricultural research and agricultural production. We need to have access to up-to-date information and the highest quality technical information available. We need to be adaptable to our surroundings. If in fact we have tremendous urbanization occurring next to our farms, there may be a time when we have to switch from being a peanut producer, for example, to being a pick-your-own producer. We have to make the choice whether that change is acceptable to us. In order to be profitable, some of those things may have to occur.

Slide 46.

A Vision of Agricultural Success

- ◆ **Sensitivity to consumer trends**
- ◆ **Progressive management practices**
- ◆ **Innovative marketing techniques**
- ◆ **Aggressive international marketing**
- ◆ **Advanced scientific research**
- ◆ **Access to information**
- ◆ **Adaptability to surroundings**

I think the future is much brighter than I have indicated with these challenges. Virginia has a strong agriculture. It has a lot of very hard working and dedicated people.