

2004 EXTENSION ANNUAL REPORT

AGRICULTURE AND NATURAL RESOURCES

Contact Dickie Rhea, District Director, drhea@ext.msstate.edu

AGRONOMIC CROPS

Corn

The 2004 corn-growing season in Northeast Mississippi was good overall with a few minor set backs in some areas. Corn was planted in a timely manner. Overall this was an early crop with good growing conditions in April and May. June rains hurt some fields, kept the soil saturated for several weeks and increased disease pressure and nitrogen loss. Northern and Southern Leaf Blight was a major problem in many areas and susceptible hybrids lost 30 – 40 percent yield. In spite of the disease pressure, some producers were still able to make record crop yields. Statewide corn production for grain is 136 bushels per acre, breaking the previous year's record of 135 bushels. In farm-gate value the state crop fell 26 percent in 2004.

On-farm demonstrations evaluating hybrid selection, seed treatments, and herbicides were conducted with producers in several counties. One seed treatment demonstration in Monroe County indicated a 30 bushel per acre yield advantage by applying a seed treatment, resulting in a net profit increase of \$64 per acre by using a seed treatment. In Lee County a seed treatment study gave a 7 bushels per acre yield increase over the check and a net profit of \$15 per acre. In Noxubee County, a seed treatment study indicated that one treatment was 13 bushel per acre higher than the standard or \$28 per acre profit.

The Southwestern Corn Borer (SWCB) trapping program intensified in 2004 and consisted of 90 traps used to monitor the timing and management of insecticide applications. Although we experienced lower numbers in some areas, Noxubee and Lowndes trap counts increased dramatically over the 2003 crop season. We will continue to monitor the SWCB in 2005 and should see an increase in *Bt* corn in Northeast Mississippi due to this pest.

Producers participated in more area type field days and production meeting to address corn management. "Turn-row" talk meetings are held during the growing season at equipment barns, restaurants, and fields to update producers on products that are available for the current growing season and what might be available in the upcoming growing season. This meeting is informal and has proven beneficial to the producers.

Ag Market Network conference calls are offered to producers monthly through many county extension offices. This is a cooperative effort between the Mississippi Farm Bureau Federation, MSU Extension Service, and Rosenthal Collins Group L.L.C. This network has been formed to give producers timely marketing information in row crops, aid in their understanding of crop marketing and help the producers develop a market plan to generate a cash flow to meet expenses. Due to the interest from these meetings the Northeast MS Row Crop Marketing Short Course was held in Verona, MS and a total of 18 people attended the program.

Cotton

In spite of excessive rainfall in 2004, Mississippi cotton growers produced a record high yield in 2004 with a state average of 1034 pounds of lint per acre. The rainfall caused local problems with weed control programs, planting and stand establishment, and fertility programs. Temperatures were moderate throughout the growing season, but did not contribute to crop stress. Cotton yields in Northeast Mississippi ranged from 450 to 1200 pounds of lint per acre. Cotton lint grades were excellent at the beginning of harvest but deteriorated to discount levels as environmental conditions changed during the harvest.

Mississippi State University Extension Service Area Agronomic Crop Agents utilized educational meetings, field research and demonstration projects (weed control, plant growth regulator, foliar fertilization studies), variety trials and demonstrations, newsletters on topics of interest, “turn row meetings”, individual technical assistance, workshops, shortcourses and farm tours to provide cotton growers relevant and timely production information. Tours of the Pontotoc Ridge Experiment Station and North Mississippi Research and Extension Center were opportunities for cotton growers to evaluate new technology and products. Participants consistently stated they would expect savings or increased profits from information provided above \$8 per acre.

Summary of Activities and Selected Field Trial Results:

Tindall Farm

Cotton Plot

Eupora, MS (Webster County)

Investigator: Dennis B. Reginelli, Area Extension Agent – Agronomic Crops

Brand/Product	Harvest length (feet)	Harvest Width (inches)	Harvested Acres	Seed cotton Harvested	Seed Cotton Avg/Acre	Lint ¹ Percent	Final Lint Yield Lbs/acre
DPL 555 BG/RR	1553	304	0.903	2115	2342	45.7	1070
ST 5242 BG/RR	1556	304	0.905	2445	2701.657	43	1162
FM 960 BR	1568	304	0.912	2440	2675.439	41.7	1115
DPL 488 BG/RR	1572	304	0.914	2520	2757.112	42.7	1177
ST 5599 BG/RR	1577	304	0.917	2770	3020.72	43.4	1311
DPL 555 BG/RR	1568	304	0.912	2395	2626.096	45.7	1200
Planting Date:	27-Apr-04						
Harvest Date:	6-Oct-04						
Row Harvest:	8 Rows (38" Row Spacing)						
¹ Lint Percent is based on small grab samples taken from the harvested plot and replicated four times. The grab samples do not represent the actual gin turn-out because these samples do not have the trash removed from the lint during the ginning process. However, these samples are relative to each other although the lint percent is higher than what you will receive from the gin.							

William Lee Bagwell

Cotton Plot

Eupora, MS (Webster County)

Investigator: Dennis B. Reginelli, Area Extension Agent – Agronomic Crops

Brand/Product	Harvest length (feet)	Harvest Width (inches)	Harvested Acres	Seed cotton Harvested	Seed Cotton Avg/Acre	Lint ¹ Percent	Final Lint Yield Lbs/acre
FM 800 B2R	1122	608	1.305	3305	2533	41.2	1044
DPL 555 BR	1088	608	1.2655	3770	2979	44.6	1329
FM 960 B2R	1068	608	1.2422	3840	3091	42.2	1304
ST 5242 BR	1048	608	1.219	3985	3269	42.4	1386
ST 4892 BR	1026	608	1.1934	3670	3075	42.8	1316
FM 960 BR	1022	608	1.1887	3870	3256	40.8	1328
DPL 444 BR	979	608	1.1387	3500	3074	43.2	1328
ST 5599 BR	934	608	1.0864	3550	3268	43.2	1412
Planting Date:	30-Apr-04						
Harvest Date:	1-Oct-04						
Row Harvest:	16 Rows (38" Row Spacing)						
¹ Lint Percent is based on small grab samples taken from the harvested plot and replicated four times. The grab samples do not represent the actual gin turn-out because these samples do not have the trash removed from the lint during the ginning process. However, these samples are Relative to each other although the lint percent is higher than what you will receive from the gin.							

Winter Annual Weed Control

Trial ID: JP01PON04

Location: Randolph, MS

Investigator: Mr. Jay B. Phelps, Area Extension Agent – Agronomic Crops

Weed Code	LAMAM	STEME	CARPA	POAAN
Rating Data Type	Control	Control	Control	Control
Rating Unit	Percent	Percent	Percent	Percent
Rating Date	4/5/2004	4/5/2004	4/5/2004	4/5/2004
Trt-Eval Interval	29 DA-A	29 DA-A	29 DA-A	29 DA-A
Trt Treatment	Rate			
No. Name	Rate	Unit		
1 Untreated			0 d	0 c
			a	0 c
2 Glyphosate	0.5 LB A/A		90 b	83.3 a
3 Glyphosate	1 LB A/A		96.7 a	96.7 a
4 Paraquat	0.468 LB A/A		66.7 c	63.3 b
5 Paraquat	0.9375 LB A/A		86.7 b	83.3 a
6 Glufosinate ammonium	0.5 LB A/A		66.7 c	66.7 b
7 Glufosinate ammonium	1 LB A/A		73.3 c	66.7 b
LSD (P=.05)			8.97	14.26
				10.98
				13.17

Means followed by same letter do not significantly differ (P=.05, LSD)

Yield Loss From Ivan

Hurricane Ivan blew into East Mississippi on Thursday, September 16, 2004 with sustained winds of 52 mph and gust as-high-as 72 mph with approximately 2-2.5 inches of rainfall. After reviewing the storm damage in Noxubee County it was obvious that some varieties withstood the high winds and rain better than others. The on farm variety trial in Macon was used to evaluate lint loss from hurricane Ivan. Lint loss for each variety was collected from the ground just prior to harvest on September 28, 2004.

Brand/Variety	Seed Cotton Loss Lbs/acre	Turnout	Lint Loss Lbs/acre
DP 555BG/RR	581	45	261
DP 488BG/RR	293	40	117
ST 5599BR	369	43	158
DP 449BG/RR	375	39	146
DP 458BG/RR	206	34	70
ST 4892BR	372	40	150
ST 5242BR	831	37	308
DP 444BG/RR	1162	41	465
DP 424BG2R	419	35	146
SG 215BG/RR	481	39	187
DP 451BG/RR	725	34	247
PM 1218BG/RR	962	37	356
SG 501BG/RR	675	38	256
FM 960BG2R	325	38	124
FM 960BG/RR	662	39	258
ST 4646B2R	663	37	245
AVG	569	38.5	218
Investigator: Dennis Reginelli, Area Extension Agent, Agronomic Crops			

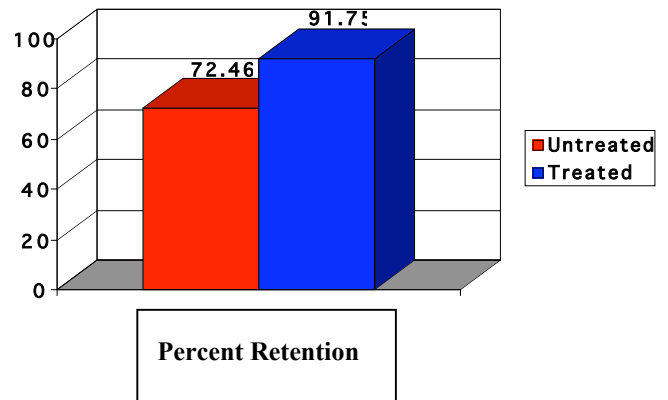
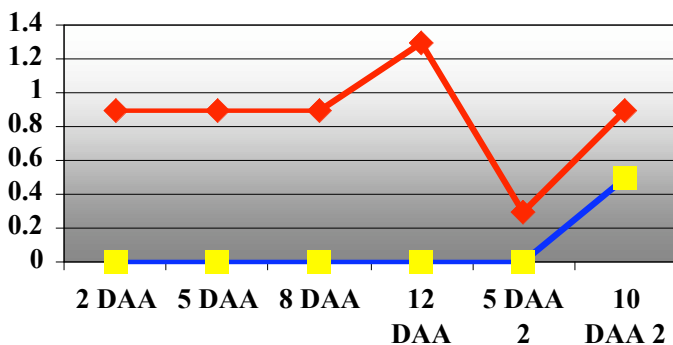
Sticks, dirt, and big leaves were separated from the cotton that was collected on the ground. Cotton was then converted to lbs/acre of seed cotton, and the final lint loss was then figured using the official gin turnout for each variety in the test plot.

Results: Estimated yield loss from Ivan ranged from a low of 70 lbs/acre to a high of 465 lbs/acre. The variety that lost 465 lbs/acre would be an economic loss of \$241.80 per acre and the variety that lost 70 lbs/acre would have an economic loss of \$36.40. In Noxubee County most of the cotton was planted in varieties that lost about an average of 218 lbs/acre or \$113.36 per acre. Noxubee County has approximately 9,000 acres of cotton and the economic loss from Ivan was approximately \$1,020,240.

Evaluations of impact of below threshold populations on square retention in cotton. Pontotoc County 2004.

Investigator: Jay Phelps, Area Extension Agent – Agronomic Crops

Adult Tarnished Plant Bugs Per 25 Sweeps



Soybeans

The 2004 soybean growing season in northeast MS had it's share of up's and down's. Excessive rainfall and cold temperatures during the planting season delayed planting and resulted in replanting acreage in many fields in the northern counties. Growers in the southern counties in the district took advantage of favorable weather conditions and got a large percent of the crop planted in the month of April making it the earliest planted soybean crop on record.

Environmental conditions and diseases were the main challenges in soybean production. As the season progressed, heavy rains & high humidity prompted many disease outbreaks, especially frogeye leaf spot and charcoal rot. Isolated cases of aerial web blight, stem canker and late season cercospora were also observed. This was the first year that Red Crown Rot was found outside of Noxubee County, and it is now in Lowndes County and was most likely spread through tillage equipment. Unlike Asian rust, this disease has no spray program that will cure the disease. Some growers made fungicide applications & most were pleased with the results getting yield increases from 3 to 6 bushels per acre. Potato leafhoppers were problems for some growers. The heavy rains received in June reduced yields, but overall, yields were average to above average in places with adequate drainage., with yields ranging from 6 bushels/acre to 75 bushels/acre. The highest yields were the result of early-planted Group IV soybeans.

Crop production meetings, a Row Crops Marketing Course, "tailgate meetings", and individual consultations were utilized to assist growers with soybean production. The "SMART" program, variety plots, fungicide plots, herbicide test plots, and tours at North MS Research and Extension Center and Pontotoc Ridge Experiment Station gave producers the opportunity to evaluate soybean varieties and discuss variety characteristics with MSU researchers, MSU Extension Service Personnel and seed company representatives. Several growers planted new varieties, including Group IV's, while others implemented scouting programs and other management practices that were beneficial. Growers at one meeting estimated over \$135,900 of economic impact from the information garnered at the meeting. Another grower realized a 70-bushel crop due to planting a new variety.

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ENTOMOLOGY

Crop/arthropod situation for NE Mississippi: For the last 3 years, insect problems in row crops have been low. Weather related problems affected most of the row crops in the area and helped to spread planting over a much longer time than most farmers wanted. Corn planting was delayed in many areas, and farmers planted soybeans because of late corn's potential for problems.

Cotton: Boll weevil captures were again very low in NE Mississippi. There continues to be a few trap captures in the area, as we had 20 weevils reported in NE Mississippi in 2004; so, we are seeing more and more areas report 'NO WEEVIL' captures and no spray activity for their management. The hill counties currently grow approximately 300,000 acres of cotton. All arthropods reduced yields by 1.22%. The bollworm complex reported the most loss at 0.92% in non *Bt* cotton and 0.40% in *Bt* and *Lygus* were second, reducing yields of NE Mississippi cotton by 0.27% in non *Bt* and 0.48% in *Bt* varieties. Stink bugs, clouded plant bugs, aphids, spider mites and fall armyworms also contributed to losses in NE Mississippi. Only about 1/2 of the acres were treated with any insecticide in 2004 and about 75% of the acres were planted to the *Bt* transgenic varieties. Foliar applications of insecticide were low with an overall cost of about \$20 per acre in Northeast Mississippi. The total cost of arthropod management, including - at planting insecticides, *Bt* use fees, eradication costs, scouting, and foliar insecticides was \$71.38 per acre in the *Bt* cotton and \$50.35 in the non-*Bt* varieties. Yields were again good in 2004 with many farms reporting 2 bales per acre. The excellent fall weather provided the generally late crop with time to compensate and an excellent harvest. A complete listing of all Cotton Insect Losses is available at <http://www.msstate.edu/Entomology/Cotton.html>.

A joint project with the Mississippi Boll Weevil Management Corporation enabled the placement of pheromone traps in 4 locations in the state, including NE Mississippi. Traps were checked and maintained weekly from May through September. Nineteen counties were included in the program, which trapped bollworm, budworms, beet armyworm moths and boll weevils. More than twice as many bollworm moths were captured as budworms, demonstrating to farmers the effectiveness of budworm management. This information was shared weekly through the Crop Insect Situation newsletter. Complete results of trap captures may be seen on the MSBWMC web site: http://www.bollweevil.ext.msstate.edu/webpage_trapln.htm

Soybeans: Three cornered alfalfa-hoppers were a pest in many soybean fields in NE Mississippi. In the late season, stink bugs were a problem in some fields, as well. The soybean aphid was also found in fields in NE Mississippi in 2004.

Corn: Heavy rains and inclement weather prevented timely planting of the 2004 corn crop. Trapping, intensified cultural management and insecticide application timing helped reduce the effect of Southwestern corn borer, but they still caused some yield loss and required pesticide expenditure. The areas of the state with SWCB damage potential were plotted and advanced warning was provided to farmers in those areas on a weekly basis. Primarily because of the emphasis on trapping and timely sprays, SWCB numbers were held well below threshold, as trap captures never exceeded 50 moths per trap in NE Mississippi, with peak captures occurred on June 23 and 30. We will continue the educational efforts to combat SWCB in 2005.

Sweetpotatoes: Losses to insects are almost always recognized after it's too late to do anything. Pests of this crop include – the grub complex (white grubs, white-fringed beetles, cucumber beetles, and others), the flea beetle complex (about 6 species), wireworms below ground, and the Lepidoptera – mostly armyworm complex above ground. In 2004, insect damage from all the pests listed above was fairly light, probably not more than 15%. Sugarcane beetles were not very prevalent in fields, and wireworms and white-fringed beetle were only isolated problems in NE Mississippi. We did not see heavy grub or cutworm damage in 2004. This year, we initiated the RAMP study on 22 farm fields in NE Mississippi. These paired comparisons of treated and non-treated fields should give valuable information in future years and allow us to tailor IPM programs to sweetpotato production.

Other entomological activities in NE Mississippi: Interest in butterflies and butterfly gardens continues to develop in NE Mississippi. Numerous Garden Clubs and other similar organizations are developing butterfly gardens throughout the area. Schools are also getting into the act by building outside science and environmental study laboratories, which include butterfly plants. Homeowner gardens and Master Gardener Projects also received attention during 2004. There is also a lot of public interest in termite and fire ant projects.

4-H Activities: There were 6 Junior Linnaean teams and 4 Senior Linnaean teams from the 28 county area in 4-H Linnaean Game competition. Tate, Marshall, Tishomingo and Webster Junior Linnaean teams were winners in their respective areas and Lee's Senior Team was first place in the Senior Linnaean Games at 4-H Club Congress. Marshall County Juniors were the 1st place Linnaean Team at the Mid South Fair Regional Championships, and the Senior Champions were from Arkansas. There were 30 Insect collections from the 28 county area displayed in various fairs and competitions. More than eighty young people from the area participated in 4-H entomological activities including Entomology Camp in 2004. The June camp was held at Plymouth Bluff, near Columbus, with 65 campers from 8 states at the 4-day camp. We were interviewed and made the local TV news for the second year in a row. The second camp was conducted at Tombigbee State Park, near Tupelo, with 50 campers attending, and it was the first all Mississippi camp we have had. Our out-of-state campers in 2004 came from as far away as Wyoming, Texas, Ohio, Vermont, as well as Arkansas, Louisiana, Tennessee and Mississippi.

A number of NE Mississippi Extension Agents were extremely helpful with 4-H entomological activities in 2004. These individuals include – Connie Walker and Tim Needham, Tippah County; Mary Baldwin, Tishomingo; Stan Wise, Union; Christine Fielder, Yalobusha; Karen Benson, Attala; Julie White, Lowndes; Scott Cagle, Chickasaw.

Contact: Michael R. Williams, Dist. Entomologist, Box 9775, Mississippi State MS, 39762 Telephone 662-325-2986 or email: mwilliams@entomology.msstate.edu or mikew@ext.msstate.edu.

LIVESTOCK

Northeast Livestock Link: The Northeast Livestock Link is a monthly newsletter designed for County Directors, 4-H Youth Agents and producers to stay informed on current issues involving the beef cattle industry. In addition the newsletter carries discussion about management practices and marketing options that encourages thinking outside the box.

The newsletter is distributed to all Northeast District County Extension offices, producers actively involved in the Cattlemen's Exchange and producers that are past participants of the Mississippi State University Artificial Insemination Shortcourse. In addition this newsletter is mailed to any producer, regardless of their participation in current Extension programs, that request to be added to the mailing list.

The Extension Agents utilize the newsletter to extract information for their monthly beef cattle newsletter as well as for media information and for one on one visits with producers.

Beef Breeders Directory: The Beef Breeders Directory was established in 2002 to assist Mississippi Beef producers with an on line listing of registered bulls and heifers, commercial heifers and embryos for sale. The Beef Breeders Directory has recently been expanded to include hay or equipment for sale and we have also added a youth section. The youth section is intended to assist youth in selling their project animals when they have completed their project work with a particular animal. The Directory is a free service to the residents of Mississippi and the web service is provided by the Mississippi State University Computer Services Department.

Producers can access the on line listing by logging on to the www.msucares.com web site. Click on Livestock, Beef Production then Mississippi Beef Cattle Breeders Directory. The listing is set up by breeds or by counties. Producers can also print a Directory form to complete and mail if they want to list the cattle they have for sale on their farm.

As more producers, both buyers and sellers, learn of this Mississippi State University Extension free service, it is expected to become one of the primary information sources for locating cattle to buy or sell in Mississippi. The beef Breeders Directory has also been linked to the Mississippi Beef Cattle Improvement Association (BCIA) web site that can also be found on the msucares.com web site.

Mississippi Beef Agribition : The March 26th and 27th, 2004 Beef Agribition was a big success for Mississippi cattlemen. A large attendance was on hand to bid on 32 lots in the All Breeds bull sale, 76 lots in the commercial heifer sale and 42 lots in the Southern Classic Registered Brangus sale. When the final gavel had fallen, a total of \$153,519.00 was distributed among the consignors. In addition to the beef cattle sales, 2004 was the first year for the Agribition to host an all breeds Consignment Horse Sale, Over 100 horses sold with a very large crowd in attendance for the Friday night event.

Another popular event that is held in conjunction with the Agribition is the producer seminar. Dr. Richard Watson, Extension Forage Specialist, spoke to the 65 producers in attendance about

managing their forages for maximum grazing and utilizing the excess as a hay crop. Dr. Watson urged producers to include more cool season forages in their overall management plan to reduce the amount of stored hay needed for winter.

“Producer’s Choice” Beef Herd – Holly Springs Research Station: The beef herd at the Holly Springs Station was developed to give small herd owners a prototype herd to compare their herd with in terms of performance, production and financial records, herd health and profitability. Currently the process of replacing the original cowherd with their A. I. Sired replacement females is underway. The first A. I. sired heifers were artificially inseminated in December, 2002 and this will be the first generation of females to make-up the “Producers Choice” foundation herd. During the next three to four years, only the heifers with the highest ratios for weaning, yearling and carcass will be retained in the herd or made available through the MAFES production sale. All other females and steers will be sent to the feedlots for finishing. Production and financial records on the first wave of A. I. sired calves will be available later this year for producers to evaluate and compare with their herd.

The 2002/2003 calf crop was the first year the herd had calves from a controlled breeding season, selected heifer calves from this group have been A.I. bred and will take their place in the mature cow herd next year. Cattlemen’s Association groups as well as other producer groups are always welcome to call and set up a time to visit the herd and review this approach to making greater profits from small herds.

Another exciting project with the “PC” herd that is just getting under way is the development of a year-round grazing plan. As feed cost continue to rise, small herd owners will need to develop a better management plan for containing feed cost. It is the intent of this year-round grazing study to help answer questions for small herds owners on how to economically implement this on their farms. Currently plots are being established at the Holly Springs Station to compare grazing Alfalfa, Chicory and Marshall ryegrass. The initial study will look at weight gains from stocker calves on the three forage types.

Artificial Insemination Shortcourse: The 2004 Artificial Insemination Shortcourse held at the Prairie Research Station was well attended. Twenty three producers from two states were exposed to the latest information in Artificial Insemination and Synchronization techniques. In addition the producers were given information on herd health, working facilities and corral designs, understanding EPD’s, nutrition and proper feeding and whole herd management and bio-security for the farm.

This shortcourse is one of the few of its kind held in the entire southeast and because each participant requires a great deal of one on one teaching, the class size is limited to 25 people per year. Producers interested in learning how to become a successful Artificial Insemination technician begin calling 4 to 6 months prior to the October shortcourse to ensure they can secure a slot in the class.

The state of the art working facilities at the Prairie Unit is completely protected from inclement weather, which allows the class to be taught without concern of weather related issues. The staff

at the Prairie Station are to be congratulated for being an intrigal part of making this short course a successful event. In addition, the Mississippi State University Animal and Dairy Science Department and the College of Veterinarian Medicine provide instructors for the short course.

Master Cattlemen's Program

The Master Cattlemen's program was started in May of 2003. Producers from the North Mississippi area were invited to enroll in the year long program. This program was created to offer producers a more in-depth study of the production practices involved in beef cattle production. Thirteen producers have attended the monthly, 3 hour meeting to improve their knowledge in the production areas they feel deficient in and to share their knowledge in the areas of production that have been successful with. The informal round-table discussions have been well accepted by the attending producers and from the first meeting to the present every producer attending has expressed their desire to continue with this format. In addition to the improved knowledge base obtained by these producers, alliance marketing and group purchasing will be other benefits these producer expect to obtain form being involved in this program.

In 2004 the official name of the program was changed to The Cattlemen's Exchange. This program has also been endorsed by the Mississippi Beef Cattle Improvement Association as their official producer education program. In addition word of this successful program has spread around the state and Mississippi now has nine producers groups meeting on a regular basis. Two more producer groups are making preparations to start up during the first quarter of 2005. Producers attending these meetings around the state praise the meeting as the best educational program that has been introduced in a number of years. The producers really enjoy the interaction with other producers as they brain storm ideas to solve production problems.

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AQUACULTURE

My office is in the Black Belt Experiment Station, which is located in the center of the bulk of the catfish acreage in the Black Belt region of East MS. There are approximately 14,000 acres in catfish production in this area. One of my main responsibilities is making on farm visits to assist the farmers in making management decisions. I check water quality, fish health, and help make decisions of when to feed and how much to feed the catfish.

A deterrent system has been developed that can reduce or possibly eliminate cormorant activity of catfish operations. Cormorants are a significant problem to catfish farmers and their population levels are increasing each year. Moderate size farms with 3 or 4 ponds have been able to deter cormorants from their farm completely. The system has also proven effective in protecting individual fingerling ponds on larger production facilities. The system is based on the fact that, unlike ducks, cormorants land on a pond at long angles. By using metal fence posts, strings, and flags, we create a series of obstacles that discourage cormorants from landing in the pond.

We held two educational seminars in 2004 for the catfish farmers in East MS. One was the East MS Ag. Expo held at the Golden Triangle Campus of East MS Community College in January. Governor Haley Barbour was the featured speaker. We also had a seminar in the Bost building on the MSU campus in December. The purpose of the seminar is to provide the catfish industry with an update on current activities and research findings. The presenters were MAFES researchers, MSU-CVM researchers, MSU-ES, USDA/APHIS researchers and The Catfish Institute.

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FORESTRY

Forestry and the forest products industry generates \$14 Billion for Mississippi's economy in direct commodity sales, value added manufacturing, jobs and wages. In north Mississippi, forestry is the leading agricultural crop for these counties.

Extension personnel, working with local forestry associations, consultants, advisory groups, and other government agencies provided education for timber owners. Forestry programming focused on landowner assistance, youth development, and underserved clientele. These included 23 forestry short courses/workshops, 25 meeting programs, 9 broadcasts for the *Better Farming* radio program, 7 4-H and other youth programs, 2 forestry demonstration areas, 1 distance learning program, 1 forestry field day, and 13 news releases.

The forestry programming covered a broad range of topics: pine plantation management, using herbicides, common pine pests, applying fertilizers, hardwood management, enhancing wildlife habitat, timber taxes, and tree identification. The forestry short courses reached 221 forest landowners that owned and/or managed **123,566 acres** of forest. Their estimated value of these courses was a combined **\$2,182,650** in enhanced timber revenue and cost savings. Extension Forestry meeting programs reached a combined audience of 665 folks. In addition, each broadcast on "Forestry Friday" for the *Better Farming* radio show reached an estimated audience of 96,750 Mississippians. Also, a distance learning forestry program was conducted and broadcast to 5 counties. The 4-H and other youth programs reached **1839 children and teachers**. The Pizza Farm has been held twice annually at the Lee AgriCenter for instructing youngsters on the agricultural "ingredients" to pizza. Last year the Pizza Farm instructed 80 classes from nearby schools on the significance of agriculture in their lives.

In addition, Extension Forestry personnel worked to provide timely timber price reporting through the Mississippi State University Extension Service website. Forest2Market, Inc., is providing timber market prices, updated six times per year. This information shall help landowners estimate the value of their timber. More detailed information is available to landowners wanting to sell timber for a reasonable subscription fee. Landowners are encouraged to have their timber properly inventoried, and to obtain competing bids for sales.

Special recognition goes to the Marshall County Forestry Association for honorable mention to the 2004 Outstanding CFA award from the Mississippi Forestry Association. We also wish to recognize Mr. Tim Traugott, Extension Forestry Professor with Mississippi State University. The Society of American Foresters named Tim a Fellow in 2004 for his significant contributions to promoting forestry in Mississippi.

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HORTICULTURE

Status of Industry: The Green Industry of Mississippi, also known as the Nursery and Landscape Industry, is comprised of many different types of businesses related to environmental horticulture. The green industry includes thousands of small family businesses that grow and sell (wholesale and retail) horticultural products. Many of these also install and maintain these products for residential and commercial landscapes. Extension personnel, working with grower associations, advisory groups and state specialists, provided educational opportunities and resource materials for producers and consumers. Short courses, workshops, field days, group meetings, personal contacts and newsletters delivered information to needed clientele in the district. Mississippi has 565 landscape maintenance/contractor firms, 865 retail businesses, 165 licensed arborists, 166 pest management firms, and over 350 certified nurseries. Established annual sales (based on 1999 figures) were \$48.1 million for the Nursery/Greenhouse Production Sector, \$183.88 million for the Landscape/Horticulture Services Sector, and \$318 million for the Horticulture retail Sales Sector. Based on 2003 figures, the farm value for Fruits and Vegetables was in excess of \$100 million. Sweet Potato crops, mostly in Calhoun and Pontotoc Counties, increased harvested areas from 13,600 A in 2003 to 15,300 A in 2004 and increased production from 2.38 million pounds in 2003 to 2.60 million pounds in 2004.

The “Green Industry” of Northeast Mississippi is active and growing. Approximately 20% of the states green industry businesses are in Northeast Mississippi. The state’s second largest wholesale nursery is located in Tippah County (Tim Needham, County Director). Revenues from this county in horticulture exceeded \$1 million. The Extension Service in Northeast Mississippi recognized and addressed this expanding industry by devoting thousands of hours to horticulture programming and activities for consumers, youth and industry clientele. Extension Agents assisted several new horticulture businesses in developing on land that had been used in conventional type farming systems. These included a sod farm, a greenhouse production, and a field production ornamental tree farm. Other agents provided invaluable technical assistance and expertise to businesses that helped them to have continued success.

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WILEY L. BEAN SWINE DEMONSTRATION UNIT

The Wiley L. Bean Swine Demonstration Unit has served as a swine educational resource to swine producers, extension agents, students and allied industry in Mississippi since 1985. The staff of the Wiley L. Bean Swine Demonstration Unit express their appreciation to MSU-ES for providing materials and support for much needed repairs to the facility this past year.

The demonstration unit consists of approximately 30 sows housed primarily in natural ventilated mono-slope roofed facilities. At the swine demonstration unit, visitors can tour a working swine operation while receiving information about many swine production management, equipment and housing options. The Swine Demonstration Unit is located at the Pontotoc Branch Experiment Station on highway 15 approximately seven miles south of Pontotoc.

Daily routines: Daily routines at the swine unit consist of caring for the pigs, facilities, equipment and providing information to visitors at the unit. Items that require routine management include: feeding, making feed, heat checking, breeding, collecting boars, extending semen, pregnancy testing, farrowing, processing baby pigs (9.05 pig/litter average), vaccinations, herd health issues, record keeping, moving pigs, cleaning pens and facilities, repair water lines, and facilities, adjustment of ventilation or heat, purchasing supplies or feed ingredients, marketing pigs (659 pigs sold), maintaining equipment, managing the lagoon, maintaining the grounds around the facilities. Along with the daily routines, other extension swine activities require assistance of the staff or resources of the swine unit include programs such as, judging workshops at the unit and off-site, swine shows, agent training, boar collection and A. I. demonstrations, networking with producers, selection and delivery of pigs for various contests or activities, touring school students K-3, answering phone calls from people wanting swine related information, individual tours of the unit, and providing support for teaching or research projects.

Genetic Program: Since 1995, a primary focus of educational programming at the swine demonstration unit has been a genetic improvement program. The genetic improvement program was developed to provide area producers with a source of replacement gilts and recommendations for a breeding program that will enhance the productivity and carcass quality of the offspring. Producers also have the opportunity to receive training and assistance with artificial insemination (A.I.) techniques at the swine demonstration unit or on their individual farm.

The swine demonstration unit serves local swine producers as a multiplier herd for open replacement gilts. In 2004, 69 gilts were sold to area producers as replacement gilts. Following a breeding program as outlined by the Mississippi State University Extension Service, producers have two recommended options for replacement gilt purchases.

Option A – For Producers desiring to produce and select replacement gilts from their own herd.

1. Purchase F-1 gilts (hamp x land) from the swine demonstration unit.
 - These gilts will be a nucleus herd designed to produce a source of potential replacement gilts within the producers operation.
2. Mate the F-1 gilts to a maternal line york boar.
 - Producers have the option of mating these gilts to their own maternal york boar or by A.I. using fresh semen from maternal line yorkshire boars collected and extended by the staff at the swine demonstration unit.
3. Replacement gilts (york x hamp/land) from the above mating are then mated to a terminal line boar (duroc).
 - Producers must supply their own terminal boar for this mating either through natural service or A.I.
4. All offspring from this mating are terminal pigs and are sent to market.

Option B – For Producers that do not want to producer their own replacement gilts.

1. Purchase all their replacement gilts (york x hamp/land) from the swine demonstration unit.
2. Mate all gilts to a terminal line boar (duroc).
 - Producers must supply their own terminal boar for this mating either through natural service or A.I.
3. All offspring from this mating are terminal pigs and are sent to market.

Artificial Insemination Training – In order for producers to maximize economic efficiency many swine producers utilize A.I. as a means to improve herd genetics and reproductive performance. The use of A.I. compliments the genetic program by reducing the need of a producer owning multiple boars. At the swine unit, Producers have the opportunity to receive one on one instruction using artificial insemination techniques. Printed educational materials are also available through MSU-ES for on farm reference. Agents in the field need a working knowledge of swine A.I. techniques and how producers can best utilize A.I. in their swine-breeding program. Specific topics demonstrated at the swine unit include: boar collection, extending and storage of boar semen, heat detection, and insemination of sows.

Environmental issues: Environmental regulations have placed pressure on previously established swine operations to comply with new standards for permit renewal. Family owned swine operations experience difficulty in complying with renewal standards due to the cost of compliance especially since market returns have been below production cost much of the time in recent years. Larger swine operations are dealing with the same economic burden as family farms although their concerns are somewhat different in that efficiency of spray application seems to be their greatest need along with odor management and mortality disposal. The swine unit is limited in actual demonstration of waste management techniques however assisting producers with information regarding regulations and ideas for complying with regulations is an important step with helping producers comply with environmental standards and regulations. In 2005, the MS Department of Environmental Quality will release a new swine permit. Once the new permit is released, information will be provided to producers to assist them with compliance.

Market Situation – The 2004 hog market was kind to producers with market prices above break even although nationally, the number of pigs marketed exceeded previous slaughter record with 103.55 million pigs slaughtered or a 2.8% increase from 2003 due to a high demand for pork in 2004. In 2004, Mississippi produced approximately 478,000 pigs down about 1.7% from 2003 but relative steady production over the past five years. The big difference in the pork market of 2004 compared with 2003 was the return to the producer. Based upon pork checkoff figures, MS producers received about a 15% increase in live-weight prices in 2004.

Opportunities exist in some regions of the State to market pigs through alternative market outlets however producers need to take advantage of all pork management techniques to improve economic efficiency. In 2004, there has been an increase in the number of family size farms exploring the addition of an alternative swine enterprise to diversify their farm income. The swine demonstration unit can assist producers with management decisions and production information.

Composting: Mortality disposal is another environmental concern for swine producers. Composting appears to be the most favorable long-term solution. Incineration may be the best short-term solution for large production units but permits for this method have met resistance with the regulatory agency (Department of Environmental Quality) and the Public. Small family farms must develop an approved method other than burial for disposal of mortality that is cost effective. Composting of mortality on family farms appears to be the most acceptable and cost effective long-term method for mortality disposal. Information concerning on farm composting for small-scale production units can be obtained from the swine demonstration unit. A composting project on a larger scale is being demonstrated on several Contract Grower farms in North MS. A management guideline for composting swine mortality publication is available through the Mississippi State University Extension Service.

Other Program Activities 2004: Staff and resources at the swine demonstration unit support other programs throughout the state. These include:

- A. I. training conducted at the swine unit and on producer farms
- Judging Team Workouts (MSU Livestock Judging Team, LSU Judging Team and UTM Judging Team)
- Judging Clinic for NE district at Pontotoc Fairgrounds
- 4-H/FFA Judging Contest (Swine Judging Contest in Jackson at the State Fair, Northeast District Judging contest at Verona, Marshall County Livestock Judging contest, FFA Judging contest at MSU)
- Swine Show Support (Dixie National Junior Roundup, Dixie National Barrow Show, MS State Fair, Northeast MS Fair)
- Tours of the Swine Unit for K-3 students
- MSU Livestock Management Class (conducted Baby Pig Management Lab)
- Super Bulldog Weekend (assisted MS Pork Producers Association with Pork Promotion)
- MS Pork Producers Association Annual Meeting Report
- Individual tours and consultation (96 Adults)
- Providing weekly boar collection for MSU research project
- Furnished pigs to support:
 1. Pizza Farm activities (April and September)
 2. Pontotoc Agri-center Farm Day
 3. North Pontotoc School Program
 4. MS University for Women
 5. Furnished pigs to support MSU/ADS Teaching programs
 6. Furnished pigs to support MSU Meats Lab (73 pigs)
 7. Market hogs sold to MS slaughter facilities (659)

Educational efforts at the Wiley L. Bean Swine Demonstration Unit will continue to provide assistance to area swine producers and the swine industry. By providing individuals with accurate information regarding swine production and the swine industry, an informed decision can be made by these individuals regarding the development and management of a swine enterprise.

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**MISSISSIPPI MASTER GARDENER ANNUAL REPORT
2004**

Number of active Master Gardeners	773
Number of hours volunteered	31,623
Number of clientele contacted	65,797
Number of miles driven	197,592

The Master Gardener Volunteer Program is an educational program that enhances public knowledge in consumer horticulture. Through trained and supervised volunteers, it provides educational assistance to citizens concerning lawns, fruits, vegetables, trees, and ornamentals.

Under the guidance and support of Extension agents, participants in the program complete a training program, pass an examination, and volunteer a minimum of 40 hours within one year of training to become a certified Master Gardener. To remain active Master Gardeners must contribute 32 hours of volunteer service each year after becoming certified.

The Master Gardener Volunteer program allows Extension to extend education to an ever-increasing gardening audience and meet the public demand for information. Statewide, there are approximately 773 active Master Gardeners in 39 counties. Of this total, 137 are new Master Gardeners trained this year.

Approximately 160 Master Gardener Classes and 50 advanced training opportunities for Master Gardeners were conducted in 2004. For the first time in 2004, 60 certified Master Gardener instructors became members of the Extension Master Gardener Training Teams. These trained volunteer instructors taught 60 of these 160 classes. These volunteer instructors will greatly expand the pool of qualified teachers statewide for the training classes and contribute to the ability of Extension to offer more training classes as the need arises.

The introduction of a new computer record keeping system for use by the county offices to track and record service of Master Gardeners has enabled Extension to accurately assess the contributions of these volunteers. Counties, using the new recordkeeping spreadsheet program, reported that Master Gardeners donated approximately 31,623 hours of service in 2004. Equivalent to 15 full-time employees, this volunteer service provided a benefit of \$543,599.37 to the state of Mississippi.

Along with their Extension agent and specialist colleagues, Master Gardeners (MG's) are committed to providing high-quality educational programs in horticulture and the environment in Mississippi communities and neighborhoods. MG's donated 1,177 hours of service to deliver 391 public gardening programs for 7273 people in 2004. These public presentations represent a significant outreach, and deliver Extension information to an ever increasing gardening public. Master Gardeners also established or maintained 474 demonstration gardens at schools, parks, libraries, courthouses, city halls and other public grounds. In each project, MG's use the most recent researched-based, environmentally sound horticultural techniques and plant materials.

Master Gardeners contribute in many other ways. Master Gardeners wrote 68 newspaper articles, conducted 75 horticulture therapy projects, wrote 37 gardening fact sheets, and devoted 1455 hours to manning information booths at fairs and exhibits. Providing assistance to county and state lawn/garden shows is a significant contribution of these volunteers who donated 1431 hours of service to these Extension events. These volunteers also handled 268 home garden visits.

Preparing youth for the future through the use of gardens as classrooms is of special interest to Master Gardeners, who devote many hours to programs and projects involving youth. MG's provided coordination and expertise to 736 youth programs that involved gardening. Through these programs and projects 21,645 youth were exposed to the wonders of gardening and their environment.

Master Gardeners have provided leadership and support to the 4-H Junior Master Gardener (4-H JMG) Program statewide. Master Gardener volunteers have conducted trainings for teachers and leaders in the management of the program. MG's have sought and received local funding for the 4-H JMG program and have acted as leaders of the program in numerous schools in the state. The Mississippi State Board of Master Gardeners continues to host the annual 4-H JMG awards at their State Conference.

Master Gardeners at four sites in the state manned the Extension office phones to answer clients' home horticulture questions. At these four sites ((Harrison, Calhoun, Forrest and Lee County Extension offices) 1855 questions were answered by Master Gardeners. This is 1855 questions an Extension agent did not have to answer. He/she is then free to devote the time saved to other clientele or activities. Extension computer services are in the process of designing a computer program to record data received through these calls. This program would compile questions answered by subject, location and other information into a searchable database for future reference.

The Mississippi Master Gardener program enhances the ability of Extension to meet local educational needs. These volunteers provide leadership and support to horticultural educational efforts throughout the state. These volunteers drove 197,592 miles to deliver educational programming to Mississippians for the Extension Service. This represents a savings to Extension of \$71,989.00 in mileage reimbursements. Through the efforts of these volunteers, 65,797 people were exposed to research-based home horticulture information. Their dedication has allowed Extension to multiply its efforts and continue to expand and reach new audiences in Mississippi.

For more information about the program contact your county Extension office or visit our website http://msucares.com/lawn/master_gardener/index.html.

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FAMILY AND CONSUMER SCIENCES

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FAMILY RESOURCE MANAGEMENT

Financial Literacy

In 1995, the JumpStart Coalition for Personal Financial Literacy determined that the average student who graduates from high school lacks basic skills in the management of personal financial affairs. Many were unable to balance a checkbook and most simply have no insight into the basic survival principles involved with earning, spending, saving and investing.

Many young people fail in the management of their first consumer credit experience, establish bad financial management habits, and stumble through their lives learning by trial and error. The Coalition's direct objective is to encourage curriculum enrichment to ensure that basic personal financial management skills are attained during the K-12 educational experience. The wheels of education do not need to be reinvented; they simply require balance, according to the Coalition.

As a collaborative effort between the MS JumpStart Coalition, Mississippi State University Extension Service, MS Attorney General's Office, MS Secretary of State's Office, BancorpSouth, AmSouth, Trustmark National Bank, local TV stations and others, Money Matters Seminars were conducted over the state to target junior and senior students. These seminars were held with three hundred and three students and teachers attending (Oktibbeha - 120, Noxubee County - 183). Teachers were given instructional information in the following curriculums: *Money Math, Financial Champions, Consumer Jungle, Chuck Taylor and NEFE High School Financial Planning Program*. Students were provided information in the areas of Dangers of Credit Cards, Credit Jeopardy, How to Be Street Smart, Loans, Student Loans and Investing: Asset Allocation. Student participation was vitally important. Mrs. Rogers received letters from the Armstrong Middle School (Oktibbeha) students expressing their thanks and appreciation for the information they received and shared how helpful the seminar was to them. Providing this seminar saved an estimated \$41,430, however, a monetary value cannot be put on the savings the students will acquire throughout their life span.

A 2004 nationwide survey was conducted by JumpStart Coalition for Personal Financial Literacy measuring high school seniors' level of knowledge of personal financial basics. The results from this survey were compared to the surveys conducted in 2002, 2000 and 1997.

Mississippi was one of 12 states receiving statewide survey results. (Georgia, Hawaii, Iowa, Kansas, Louisiana, Missouri, New Hampshire, Utah, Washington, Wisconsin and West Virginia). Mississippi had 11 schools responding with 543 students participating. Of the 11 schools, 3 were from the lower northeast district.

On average, participants in Mississippi answered 53.3 percent of the questions correctly—which is still a failing grade based upon the typical grade scale used by schools (90-100%=A, 80-89%=B, etc.) However, this beat the national average, which was 52.3 percent, up from 50.2 percent in 2002 and 50.9 percent in 2000.

Teacher Training

Educators in Mississippi want to provide quality education to their students in the public school system. To help provide this, the Mississippi State Board of Education, the Mississippi Department of Education, the Mississippi School of the Arts, the Mississippi School for the Blind, the Mississippi School for the Deaf, and the Mississippi School of Mathematics and Science sponsored a statewide/regional MEGA Conference.

Sixty-two educators attended the six sessions offered by our groups. The conference offered 246 educational sessions for the 2500 plus educators in attendance. Ninety percent of the educators attending our sessions said they would recommend it to others. Ninety-five percent said they would offer the information received to their students and felt it would be useful to them. While ninety-eight percent said the information was applicable to their coursework, and the presenters were knowledgeable of the subject matter and very professional.

Estate Planning

An estate is the total property, real and personal, owned by an individual prior to distribution through a trust or will. Real property is real estate and personal property, which includes everything else, for example: cars, household items, and bank accounts. Estate planning distributes the real and personal property to an individual's heirs. MHV members in two counties have been discussing this topic and feared that their property would not be given or distributed to the individuals most deserving.

Two counties, Oktibbeha and Noxubee, offered, "Living Trust and Estate Planning" to their customers and clientele in the lower northeast district. One program was held in each county with a total of thirty-three attending. Estate Attorney William Howell conducted the program and provided valuable information. Participants asked a lot of questions of the attorney while favorable comments were given as a result of providing this type of program. From this program, one minority church requested that the same or similar program be offered at their church in an adjoining county. An estimate of over \$58,200 were saved through this programming effort.

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NUTRITION & FOOD SAFETY

Expanded Food and Nutrition Education Program. More than 4,349 youth and 368 adults participated in the Expanded Food and Nutrition Education Program (EFNEP) to increase their nutrition knowledge and skills. Six nutrition educators in six counties delivered the educational program to limited resource families. Youth were reached with the program through elementary schools, Head Start, kindergartens, day care facilities, and other special interest groups. With the objective of teaching youth proper nutrition habits that will carry over into adulthood, young people learned the food guide pyramid, proper nutrition, correct hand-washing techniques, and other important skills. Participants in the adult program included homemakers, TANF recipients, Community Counseling clients, WIC recipients, and high school mothers. With the goal of learning to prepare healthy, nutritious, and low cost meals, adult participants learned shopping skills, nutrition, food safety, meal planning, and meal preparation.

Food Safety Certification. State law requires food safety certification for all permitted food service establishments in Mississippi. Facilities lacking a certified individual are considered to be in critical violation of the law. Through partnership with the Mississippi Department of Health, Extension Nutrition and Food Safety Area Agents throughout the Northeast district have offered *ServSafe* food safety certification training sessions to 54 individuals in 4 classes. The 16-hour certification program addresses critical issues such as the importance of proper personal hygiene, cross contamination, time and temperature abuse, safe preparing and serving of food, hazard analysis critical control points, and cleaning and sanitizing. Successful completion of a national standardized test following the training is required for food service participants to become certified.

Family Nutrition Program. In cooperation with the Mississippi Department of Human Services, Extension serves 10 Mississippi counties in the Northeast district by providing nutrition education to individuals eligible for food stamps. During fiscal year 2004, the Family Nutrition Program (FNP) has provided nutrition education to over 77,866 Mississippians in the Northeast MS. Among the areas of improvement that were documented are: food safety; hand washing; increased number of individuals who moved closer to the recommended daily servings of food groups from the Food Guide Pyramid; increased vegetable and fruit consumption; and decreased fat, sugar, and salt intake.

Childhood Obesity. In 2001, the prevalence of obesity in Mississippi was 25.9 and the highest in the country. To address this concern, in 2004, Extension expanded its' programming effort of the Delta HOPE- Take 10 Organ Wise Guys[®] program to several schools in Northeast Mississippi. Through the program, students learned about healthy behaviors through an innovative program led by the Organ Wise Guys[®] characters, teaching the students about positive health choices through educational books, videos, and other educational tools. In addition, the TAKE 10![®] Program, a classroom-based physical activity program integrates activity with academics, and is implemented by teachers at least three times each week, adding an additional thirty minutes per week of physical activity to life of every student.

Impact Statement

1. Over 4,675 limited resource adults and youth were reached through the Extension Expanded Food and Nutrition Education Program. Participants learned good nutrition, food safety, and physical fitness.
2. Almost 250 limited resource families learned to budget their food dollars, plan nutritional meals, feed their families a balanced diet, and improve their dietary habits through Extension sponsored educational programs, reaching 326 in the household.
3. More than 764 individuals were reached with life skills information enabling them to make informed food choices.
4. Over 77,866 direct contacts were made through the Family Nutrition Education Program, reaching 36,885 by indirect contacts and 27,877 with published information.
5. Principles of food safety and prevention of food-borne illness were delivered to over 250 individuals.
6. In the area of Nutrition and Food Safety Program Area, more than 2,807 direct contacts were made.
7. Extension Area Nutrition and Food Safety Agents certified in the *ServSafe* food safety certification program offered more than 4 classes to over 54 participants.
8. In cooperation with the Mississippi State Department of Health and North Mississippi Medical Center, Extension sponsored a four-week seminar attended by 64 diabetic patients or family members who care for them. A six-week follow-up evaluation of the program found: 27 diabetics are managing their meal plans, food selections, and serving sizes better while eating less fats and sugars; 18 participants are involved in some form of exercise and have lost weight ranging from 3 to 20 pounds; 13 diabetics have lower blood pressure measurements, which they attribute to better eating habits and regular exercise; and 3 diabetic support groups have been established with Extension's assistance as an outgrowth of the program.

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CHILD & FAMILY DEVELOPMENT

2004 brought on many challenges due to budget cuts, but also great opportunities, for the area of Child and Family Development. With the vacancy of a position within the district, my counties of assignment at various times ranged from eleven (11) to twenty one (21). I provided radio spots for local radio stations and news articles for at least one newspaper in each county.

In 2004, approximately 176,000 persons were contacted in areas including: Parent Education; Senior Citizens; Child Care Professionals; Family Life

Parenting education sessions were conducted throughout the district at several housing authorities, childcare centers, Headstart centers, and on an as-needed basis from Department of Human Services for at-risk clientele. These sessions are free of charge where some clientele might have to pay up to \$25.00 per session for a privately-funded parenting class. Also, a free monthly newsletter for working women which goes out to over 10,000 people monthly.

Childcare professionals in MS are required by their licensing agency (the MS Department of Health) to complete a minimum of fifteen (15) approved hours per calendar year. The nearest major child development events usually occur in Memphis, TN and in Jackson, MS. These events range from \$40.00 up to \$100.00 and more, plus the cost of gas, food, and (sometimes) lodging. In October 2004, a major event connected to training was the (8th annual) Child Care Conference which was this year held at Itawamba Community College. The event accommodated approximately 220 childcare professionals who each received six (6) hours of approved in-service training hours. The expediency impact was that the conference was held within the distance for ease of travel; the economic impact of this one event was more than \$17,600.00; but more significant is the fact that teachers and child care professionals are better equipped to work with children due to the conference. This means better education and positive environments for children.

Another service to child caregivers is a monthly email newsletter for childcare professionals. This free publication announces upcoming trainings and events, addresses child development issues, and offers curricula (for infants to elementary schoolers). The curricula for the preschoolers is cross-referenced to Benchmarks set out by the MS Department of Education which emphasizes skills needed for three year olds in order to promote school readiness. Approximately 2,000-3,000 people receive this publication monthly, either via email or traditional mail. Considering these figures along with the 10,000 (monthly) working women's newsletters, there is a realized economic impact of tens of thousands of dollars for free services from MSUES as opposed to payable services.

MSUES had a presence at many Senior Citizen events throughout the district, with agents serving as keynote speaker on several occasions. Issues pertinent to Senior Citizens and the changing face of today's family. These are always prominent concerns and set the stage for much program planning. Senior Citizens continue to be a loyal audience and express the need for information to improve their lives.

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LIFE SKILLS THROUGH 4-H PROJECTS: PIZZA FARM

Sherry Smith, 4-H Youth Agent, Lee County

Program Description: Today's children have fewer opportunities to see animals and crops growing on farms. Therefore they are less aware of the sources of many products. The lack of knowledge about agriculture is on the increase and, therefore, the general public does not realize the importance. The awareness of the value of agriculture and the respect for the farmers are key issues to address. One proven and accepted method for telling an important story and changing attitudes over time is to target the youth audience.

The Program: The Mississippi State University Extension Service organized 4-H Pizza Farm Field Days to educate children on the importance of farmers and the role of agriculture to produce kids' all-time favorite food – pizza. This has become an interesting and appetizing way to present the story of agriculture to today's younger generation, yet keep it on a level they understand and can appreciate.

The field days involve rotating youth through nine hands-on educational stations. Each station represents a commodity that goes into making a pizza. Things like dairy, beef, pork, vegetables, forestry, wheat, soybeans, and herbs are discussed. The favorite stop for youth is the actual Pizza Farm itself. Laid out in the shape of a pizza, the farm is 80 feet across, and divided into eight sections that represent the various commodities.

Impact: Since it was established, approximately 5000 third-grade students from area city and county schools have participated in 4-H Pizza Farm Field Days. A random sample of students has been tested through the pre/post test method in which a sizeable gain in knowledge was reflected. Teachers have also been surveyed on the effectiveness of the event. Comments from teachers include:

“The students were very enthusiastic and interested in all the activities. The teachers and students hope this will be an annual event.”

“After we returned to school, we used many of the principles the children had learned in additional lesson plans, including math.”

“This was our first year to attend, please make sure we get an invitation for next year, we want to make this an annual event.”

Key to Success: The willingness of commodity groups and other agencies to form partnerships with MSU-ES is for the good of our youth. The enthusiasm and interest that teachers exhibited made it a positive experience for the students. The ability of teachers to incorporate the concepts learned into other areas of teaching creates a holistic approach to learning.

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