Dairy News

December 2000

Calf Management-Newborn to Weaning

Dr. Angelica Chapa
Extension Dairy Specialist

Housing

There are many methods of housing calves including hutches, pens, calf barns or tethering. Whichever method you decide to use there are some key points to keep in mind so that calves remain healthy. These include the following:

1) **Air flow**- Proper ventilation is necessary to reduce the transmission of airborne disease-causing agents from calf to calf. Good airflow also keeps down unpleasant odors that can harm calves either directly or indirectly by increasing stress and lowering the calf's disease resistance.
2) **Isolation**- Calves should be physically isolated from each other. Common diseases, which can infect calves, can be spread by fecal-oral or animal-to-animal contact. By separating calves the risk of disease transmission can be reduced.
3) **Comfort**- Calves kept in a comfortable environment can use the nutrients in their diets for growth. However, if calves are kept in an environment that has them under stress, more of the nutrients in their diet will go towards dealing with the additional stress. One key word to remember for comfort is DRY. The amount of bedding used should be adequate enough to keep the calf dry and comfortable. Another part of calf comfort is accessibility to feed and water which should always be kept fresh and easily available.
4) **Economy**- Minimizing expenses is an important part of calf raising. Labor efficiency and easy access to observe calves should be a part of the housing. The ease of cleaning the housing after calves are moved will also affect labor efficiency.

Nutrition

After calves have been fed high quality colostrum, there are several choices of liquid feed for pre-weaned calves: whole milk, waste milk, and milk replacer. **Whole milk** is an excellent feed because it contains more protein and energy than most milk replacers. It is also the most expensive source. **Waste milk** can also be an excellent feed for calves, however, waste milk can represent an opportunity cost (milk not going into the tank) and should be used with some precautions. The health of the cows the milk is coming from is of importance. Milk from cows that may be shedding pathogens (such as Johne's) can infect calves very quickly. Check with your veterinarian. Milk is an excellent place for microbes to grow, so milk sitting at room temperature for a long period of time can lead to a rapid increase in the microbial load. If the milk looks bad- too bloody or looks unusual- don't feed it. This milk may have active organisms that may not be well digested by the calf's system. Studies have shown that milk from the first milking after antibiotic treatment contains too much antibiotic and may lead to residue problems (i.e. feeding bull calves for sale).

Milk replacers are another good liquid feed option for calves. Milk replacers can differ in cost and quality. The best replacers will contain milk based protein sources and fat from animal sources and contain at least 20% crude protein and 10% fat. If the protein comes from a plant source, the protein content of the replacer should be higher than 20% because certain plant proteins have a lower digestibility. To cut some of the cost of milk replacer, evaluate them for less expensive but high quality protein sources which perform equally well. Calf performance on the farm will be a good indication how well the calf replacer is doing. Table 1 shows a list of protein and fat sources from different quality milk replacers.

The cost of rearing drops when calves are weaned from expensive milk or milk replacer. The biggest question is "When is the calf ready to wean"? Calves should have adequate rumen development before weaning so that calves can get ample nutrients from the dry feed. Starter should be introduced to calves at approximately one week of age. How much starter should calves be consuming? Holstein calves should be eating anywhere from 1.5 to 3 lbs. of starter for two con-secutive days, while Jerseys should be eating about 1 lb. per day. Water is important for proper rumen development and should be available at all times. Milk and milk replacer do not amount to "free water". Fresh feed and water should be fed daily. Stale feed and water may discourage adequate intake. What about feeding hay? Research has shown that hay helps in healthy rumen function but is **not** the main reason for rumen development. Hay does not provide enough nutrients for a growing calf, so provide small amounts of high-quality grass hay starting at the time the calf is eating 2 pounds of starter per day.

Health

Good sanitation is necessary for keeping calves healthy. Bottles, buckets, and containers used for feeding should be kept clean. Hutches and pens should be cleaned to prevent urine and manure from accumulating. A vaccination program for disease prevention is essential for calf health. A specific program should be established with your veterinarian. For more information about calf raising please visit the following websites: http://www.ext.msstate.edu/pubs/is1011.htm http://www.americanprotein.com/calf/index.html

Table 1. Quality of Proteins & Fats in Milk Replacers[1]

Protein Sources

Skim milk	Specially manufactured	Unprocessed soy flour
Buttermilk		Meat solubles
Whole Whey	Soy flour	Fish flour
Delactosed Whey	Soy concentrate	Distillers solubles
Casein[3]	Hydrolyzed fish protein	Brewers yeast
Milk albumin		Oat flour
Whey protein concentrate		Wheat flour

Fat Sources

Lard	Hydrogenerated vegetable oils	Liquid vegetable oils
Tallow		
Stabilized greases		

[1] Table reprinted from University of Georgia Bulletin 831
[2] When used with one or more sources from "Best" column
[3] One half of the protein should be derived from Casein. U. of Wis. Bulletin A 1485

SEPTEMBER 2000 HONOR ROLL HERDS**

		NO.	LBS.	2X	Rolling Herd Average			
DAIRY	**COUNTY**	**COWS**	**ECM**	**3X**	**MILK**	**FAT**	**PROT**	**DOT**
DIXIE DAIRY SALES	CARROLL	334	56.8	2X	19213	881	587	09/19
TIM WEEKS	COPIAH	66	56.7	2X	22042	788	707	09/23
NORTH MS BR EXP STA	MARSHALL	117	55.0	2X	22155	748	692	09/14
HERITAGE DAIRY	TATE	421	54.7	2X	23662	981	752	09/25
J & L DAIRY	WALTHALL	220	53.9	2X	21480	772	678	09/19
MS.STATE UNIVERSITY	OKTIBBEHA	175	50.2	2X	22752	870	739	09/28
MACTOC FARM	OKTIBBEHA	199	50.0	2X	22753	824	747	09/21
A L BOYD JR	WALTHALL	78	49.2	2X	21450	653	666	09/25
MELVIN NICHOLSON	NEWTON	124	48.1	2X	23219	820	761	09/25
JEFCOAT & WILLIAMS DAIRY	JONES	65	47.4	2X	21034	707	662	09/19
J & J JERSEY	JONES	11	47.1	2X	16957	749	622	09/19
ROWZEE JERSEY FARM	NEWTON	152	45.3	2X	17312	815	660	09/24
DAVID MAGEE	WALTHALL	90	44.3	2X	14207	408	456	01/17
PAUL W EDWARDS	NEWTON	136	44.3	2X	18561	695	591	09/19
COASTAL PLAIN EXP STA	NEWTON	173	43.7	2X	22388	784	698	09/17
FREEMAN DAIRY	PIKE	138	43.2	2X	20610	692	665	08/30
BRAD BEAN	AMITE	222	43.0	2X	22017	825	695	09/06
CORY CLEVELAND	PIKE	38	42.2	2X	15114	631	548	09/02
JOHN T MCREYNOLDS	OKTIBBEHA	125	40.8	2X	17531	572	549	09/19
CLEMMER & HILL DAIRY	TIPPAH	160	40.3	2X	18622	633	617	09/09
G & B DAIRY	LINCOLN	81	39.9	2X	17833	704	644	09/11
LARRY WALKER	NOXUBEE	98	36.7	2X	15953	525	474	08/31
LEON BARDWELL DAIRY	LINCOLN	44	36.3	2X	20763	607	643	09/16
RAY GALLOP & SONS	MONROE	74	36.2	2X	18361	624	568	09/07
CONERLY FARM INC	WALTHALL	238	35.2	2X	14562	504	471	09/14

Top 25 herds enrolled on supervised DHIA testing programs by test day energy corrected milk for all cows.
**** ECM = (.3246 x test day milk) + (12.86 x test day lbs. fat) + (7.04 x test day lbs. protein)**

OCTOBER 2000 HONOR ROLL HERDS**

		NO.	LBS.	2X	Rolling Herd Average			
DAIRY	**COUNTY**	**COWS**	**ECM**	**3X**	**MILK**	**FAT**	**PROT**	**DOT**
MACTOC FARM	OKTIBBEHA	203	60.4	2X	23009	816	745	10/26
DIXIE DAIRY SALES	CARROLL	345	59.1	2X	19681	915	593	10/26
HERITAGE DAIRY	TATE	430	58.2	2X	23637	982	748	10/19
A L BOYD JR	WALTHALL	79	57.7	2X	21548	650	664	10/25

NORTH MS BR EXP STA	MARSHALL	113	55.6	2X	22303	754	696	10/10
PAUL W EDWARDS	NEWTON	137	54.3	2X	18584	697	590	10/24
JEFCOAT & WILLIAMS DAIRY	JONES	61	54.3	2X	21467	717	670	10/25
KNIGHTS DAIRY FARM	JONES	130	53.7	2X	20530	691	661	10/18
J & J JERSEY	JONES	13	53.4	2X	16829	746	614	10/25
THOMPSON BROTHERS	MARSHALL	137	51.3	2X	20775	814	670	10/02
COASTAL PLAIN EXP STA	NEWTON	176	49.5	2X	22422	785	696	10/15
CAL MAINE FOODS DAIRY	HINDS	1685	47.6	3X	20498	743	628	10/14
LEON BARDWELL DAIRY	LINCOLN	45	46.8	2X	20710	600	639	10/21
ROWZEE JERSEY FARM	NEWTON	156	46.8	2X	17296	814	656	10/15
BRAD BEAN	AMITE	222	46.6	2X	21788	814	683	10/12
DAVID ROBINSON & SONS	RANKIN	134	45.2	2X	19320	674	590	10/02
MILTON & TERRY JEFCOAT	JONES	194	44.0	2X	20669	680	668	09/26
RONALD H CLARK	LINCOLN	77	43.5	2X	22160	801	712	10/23
FLOWERS DAIRY	JONES	76	43.2	2X	17807	554	566	10/24
CLEMMER & HILL DAIRY	TIPPAH	165	43.0	2X	18823	636	619	10/21
GOTTAGO DAIRY	COPIAH	135	41.6	2X	14557	528	468	09/29
LARRY WALKER	NOXUBEE	97	40.4	2X	16306	564	505	10/12
QUIN'S DAIRY	PIKE	61	40.3	2X	15290	502	496	10/04
RUTLAND FARM	LINCOLN	86	39.5	2X	18240	603	577	10/25
GOTTAGO DAIRY	COPIAH	124	37.9	2X	14666	531	469	10/24

Top 25 herds enrolled on supervised DHIA testing programs by test day energy corrected milk for all cows.
**** ECM = (.3246 x test day milk) + (12.86 x test day lbs. fat) + (7.04 x test day lbs. protein)**

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Prices of Dairy Cattle Replacements

Dr. C. W. "Bill" Herndon
Dairy Economist, MSU

Dairy cattle prices have been a topic of great interest during the past 18 months because of the expansion of the U.S. dairy herd during late 1999 and 2000. At the request of several dairy farmers and other dairy industry representatives, this newsletter will report selected prices for dairy replacement cattle by reporting USDA, Agricultural Marketing Service (AMS) prices for these types and for various grades of dairy cattle. The AMS collects dairy replacement prices for several locations across the U.S. Two of these locations are in the Southeast. Prices are reported for the Blansit, Missouri and Thomasville, Georgia auction markets. This information should provide some insights about the market value of dairy heifer and cow replacements. For this issue, the prices at Blansit (southeast Missouri) represent the auction held on October 24 while the Thomasville (southern Georgia) prices were collected for the sale on October 30. While for Springer Cows, prices were $1,385 for Supreme; $950 to $1,170 for Approved; and, $525 to $740 for Common grades. At the Thomasville sale, Springer Heifer prices ranged from $1,330 to $1,540 for Supreme; $1,130 to $1,320 for Approved; and $560 to $840 for Common grade animals. For Fresh Milking Cows (2 to 5 years), prices were $1,400 to $1,590 for Supreme; $1,100 to $1,360 for Approved; and $470 to $780 for Common grades. Please

provide your input to this author as to how best report these dairy heifer and cow price statistics to assist you in managing your dairy operation

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Dairy Provisions of FY 2001 Agricultural Appropriations Bill

Dr. C. W. "Bill" Herndon
Dairy Economist, MSU

On October 30, President Clinton signed the fiscal year 2001 Agricultural Appropriations bill into law. This piece of legislation has several provisions related to national dairy policy and programs. Two features are of most importance to Mississippi dairy farmers and other milk producers across the nation. As expected by most of the dairy farmers and other milk producers across the nation. As expected by most of the dairy industry, the first provision extends the deadline for the termination of the dairy price support program until December 31, 2001. This will allow the USDA to continue its practice of
purchasing cheese, butter and nonfat dry milk in an effort to support the price of Class III milk at $9.90 per cwt. for another year. The second feature is a disaster relief program that provides direct payments to dairy farmers to compensate producers for drought and other weather events as well as low milk prices suffered during 2000. These payments will be based on 35% of the difference between the average milk price in 1999 compared to 2000 and paid on a maximum of 3.9 million pounds of milk produced per farm during 2000. The USDA expects that this price difference to be around $2.00 per cwt. and that these disaster payments will equal approximately 70 cents per cwt. Under these assumptions, the maximum payment that a dairy farmer might expect would be $27,300 (or 70 cents times

39,000 cwt.). Overall, the USDA anticipates that dairy farmers will receive almost $670 million in disaster relief payments. As of the writing of this newsletter, there have been no details about how farmers can sign up to receive these direct payments or when these monies would be distributed to dairy producers.

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October 2000 BFP Price

Dr. C. W. "Bill" Herndon
Dairy Economist, MSU

Class I Milk Price Remain Stable, Falls 7 Cents to $14.92 per cwt.

With the USDA's implementation of Federal Order reform on January 1, 2000, this newsletter began reporting the Advanced Class I milk price as a barometer, or indicator, of the direction and magnitude of movements in milk prices. The Advanced Class I milk price is announced by the USDA each month on the Friday on or before the 23rd of each month and will represent the Class I milk price for the next (or subsequent) month. Thus, the USDA announced on October 20 that the November 2000 Advanced Class I "base" milk price was $11.82 per cwt. (for 3.5% butterfat milk). After adding the $3.10 Class I price differential for the pricing zone which includes Atlanta and Starkville (Oktibbeha County) to this "base" price, the Advanced Class I milk price for November will be $14.92 per cwt (Please review the map located on the back page of this newsletter and note that the Mississippi counties grouped in Zones 6, 7 and 8 are ALL part of the $3.10 Class I price differential area.) Thus, the November Advanced Class I price (for the Atlanta and Starkville, Zones 6, 7 and 8) was reported at $14.92 per cwt. and represents an DECREASE of 7 cents per cwt. (-0.5%) BELOW the corresponding October price of $14.99. This Advanced November Class I price is a whopping $4.22 per cwt. (or –22.9%) LESS than the November 1999 Class I price of $19.34. Dairy producers need to remember that the November Class I price will be the most important factor that will influence the revenues derived from the sale of their milk produced during November. Because 70-plus percent of Mississippi milk is utilized as Class I products, farmers will not realize any decline in revenues from this 7-cent decrease in the November price until they receive their "settlement" checks in mid-December as payment for milk sold during November 2000.

Market Conditions.

The near-term market outlook for dairy product and milk price still looks very dismal as excessive supplies continue to overwhelm any positive demand aspects. Cheddar cheese prices on the Chicago Mercantile Exchange during October have been at their lowest levels since 1978 and the November Class III milk futures contract price has been below $9.00 per cwt. during late October. The usual late summer and fall upsurge in dairy product demand has not been able to counteract the persistent "deluge" of milk being produced across most regions of the country. The USDA's September 30 Cold Storage report indicates that inventories of butter and natural cheeses are about 15% greater than September 1999 compared to 5 to 15% less than August 2000 totals. Despite these miserable market conditions, the Class I milk prices have been surprisingly stable since August as butter prices have bolstered and maintained milk prices near the Class I base price of $11.80 to $11.90 per cwt. During the last week of October, Florida bottlers imported 4 loads into the state compared to 102 during the previous week and 175 for the same week of 1999. Other handlers in the Southeast shipped in an additional 89 truckloads (from Minnesota and Michigan) compared 99 loads during the previous week and 35 a year ago. Dairy economists and industry analysts are predicting that Class III milk prices will fall below the $9.00 per cwt. for the first time since January 1978 and are not expecting this price to reach the $10.00 level till the summer of 2001. However, butter prices are forecast to remain above the $1.00 per pound for the next two months and this should sustain Class I milk prices near their current level through January 2001.

Milk Production.

Milk supplies are overpowering milk and dairy product prices resulting in extremely low prices that have not been witnessed in almost 23 years. Dairy farmers have not yet responded to these current market conditions by decreasing the number of cows in their dairy herds. In fact, milk producers seem to be reacting to the lingering effects of record high milk prices experienced during 1998 and 1999 and have increased the number of cows in their herds. Thus, national milk production increased 2.8% (or 362 million pounds) between September 1999 and September 2000 where 92,000 (13,000 more cows than in August 2000) more cows were milked that yielded an average of 25 (+1.8%) more pounds per cow. Comparing the September 1999 versus 2000 data found (for the 20 states that the USDA reports monthly data) that 16 states recorded increased output while four states (Virginia, -2.6%; Minnesota, -0.4%; New York, -0.3% and, Washington, -0.2%) noted a decrease in production. Of these 20 states, three states recorded double-digit increases in September-to-September output where Indiana again registered an enormous 18.0% upsurge followed by New Mexico (+13.5%) and Idaho (+10.7%) Two of the three southeastern states in the 20-state
reporting scheme recorded increased output between September 1999 and 2000 (i.e.; Kentucky +2.4% and Florida +5.0%). The third quarter milk production statistics indicate that output has decreased for the states surrounding Mississippi. Milk production decreased 7.7% in Alabama, 1.8% in Mississippi, 1.6% in Arkansas and 1.4% in Louisiana between the July to September quarter of 2000 and those same months of 1999. Mississippi milk output fell from 114 to 112 million pounds when comparing the third quarters of 1999 versus 2000, respectively. Additionally, the number of dairy cows in Mississippi fell from 37,000 to 35,000 between these two time periods. Very favorable fall weather conditions across most the nation, including the Southeast with cooler temperatures and needed rainfall, has contributed to another surge in milk output. Most analysts predict that milk production will not decline until farmers start reducing the number of cows in their herds. But with a continuation of low feed prices and sluggish cull cow prices, dairy producers will likely have adequate incentives to hold on to milk cows and/or replace low producing/marginal animals in dairy herds. So, cow numbers

are not projected to decline significantly over the next 9 months and this will postpone the market signals provided by depressed dairy prices. However, unusual weather events could alter this situation very quickly and a harsh, wet winter could alter the milk supply picture, substantially. However, burdensome milk supplies are predicted to afflict the dairy industry with very low milk prices throughout the reminder of 2000 and most of 2001.

Dairy Product Prices.

The surprising and startling features of dairy products markets during late October have been the plummeting of block and barrel cheese prices. The most astonishing market occurrences were that cheddar cheese prices fell some 8 to 10% *below* the corresponding USDA price support levels. Analysts have attempted to explain this circumstance by describing that cheese processors have been unwilling and, in some cases, unable to offer their cheese inventories to the USDA. However, both block and barrel prices have stabilized during the last half of October and have remained unchanged since October 20 at $1.02 and $1.00 per pound, respectively. Despite the plunging cheese market, butter prices have remained "steady" during October and have remained in the $1.15 per pound range throughout the month. About the only positive market characteristic found in the current situation has been the recent USDA's cold storage holdings report that indicated decreases in both butter and American cheese inventories from August 2000 to September 2000 (ranging from 5% to 15% declines). On the Chicago Mercantile Exchange (CME), 40# block prices were reported at $1.30 on September 22 and have "crashed" substantially to $1.02 on October 27 -- a 27.75 cent (-21.4%) decline over this 5-week period. Barrel cheddar prices have suffered a similar happening during October where the CME reported a cash price for 500# processed barrel cheddar cheese of $1.25 per pound on September 22 compared to $1.00 on October 27 – a 25-cent (-20.0%) decrease over this time span. The butter market, described "mixed or steady", has absorbed large quantities of milk moving away from the extremely depressed cheese market and continued good demand for both fresh and frozen butter appears to be sustaining prices. On September 22, the Grade AA butter price was $1.20 per pound compared to $1.14 on August 25 – a decline of 6 cents (-5.3%) per pound. Again, no movement has been reported on the CME for Grade A nonfat dry milk (NDM)prices that have remained absolutely constant at $1.03 per pound since September 1999. Government USDA/Commodity Credit Corporation or CCC) purchases of non-fortified and fortified NDM have increased slightly and have totaled 8 to 9 million pounds compared to about 400,000 pounds of cheeses purchased during October.

Near-term Market Outlook.

Excessive and burdensome milk supplies continue to drive down dairy product and milk prices. Thus, the price outlook for last quarter of 2000 and first half of 2001 remains very pessimistic with a dreary Holiday season facing dairy farmers across the South and Mississippi. Cheddar cheese prices have been overwhelmed by the "flood" of raw milk and have plunged to 23 years lows while butter remains the single glimmer of hope in a dismal economic situation for milk producers. The butter market is "holding its breath" as the strong Holiday demand situation could reverse itself and force butter and Class I milk prices down very rapidly and significantly. Despite this weakness, Class I milk prices are expected to remain stable and decline slightly during December. But if the butter market crashes in November and December, Class I prices will suffer a similar fate that is anticipated for Class III (less than $9.00 per cwt.) in November. Therefore, the December Advanced Class I milk price for Mississippi (Starkville zone) should decline about 10 cents per cwt and be reported near the $14.70 level. The October Class III (which replaced the BFP) is also expected to decrease about 70 to 75 cents below the September price and be reported near $10.00 per cwt. The CME reported on October 27 that the Class III futures contracts settlement prices were $10.04 for the October contract, $8.87 for November, $9.33 for December, and $9.75 for January. Caution must always be employed when using these predictions because the past 10 to 15 years has demonstrated time and again that there is a tremendous amount of uncertainty and volatility existing in dairy markets. Therefore, all dairy farmers must use great caution when using price forecasts offered by dairy analysts.

Southeast F.O. #7 "Blend" Price Climbs 1 cent to $14.16 in September

The Southeast Federal Order Milk Market Administrator reported the September 2000 "blend" or uniform price for milk delivered in the Atlanta and Starkville "base" zone of Federal Order (FO) #7 was $14.16 per cwt. for 3.5% butterfat milk. (Please see the Mississippi map for zones where Zone 5 is minus $0.20, Zone 6, 7 and 8 are the "base" zones, Zones 9 is plus $0.20, Zone 10 is plus $0.30, and Zone 11 is plus $0.40 per cwt.) The September "blend" price of $14.16 for the "base" zone of FO #7 represents an INCREASE of 1 cent per cwt. (+0.1%) compared to the August price of $14.15. The September 2000 blend price is $2.31 per cwt. (or –14.0%) BELOW the September 1999 blend price of $16.47. Average butterfat test and the butterfat price in each of the four milk class categories has a direct impact on the value of milk pooled in FO #7 and the amount of milk revenues available to be distributed to dairy farmers (but NOT reported in this newsletter). For September, the respective butterfat price and the average butterfat test for each milk class were: Class I, $1.26 per lb. and 2.16%; Class II, $1.28 per lb. and 8.28%; Class III, $1.27 per lb. and 4.39%; and, Class IV, $1.27 per lb. and 11.20%. Factoring the average butterfat test (or number of pounds of butterfat) with the pounds of skim milk used in each of the four milk classes provides what this newsletter will describe as the "net" milk price for each class of milk. The September "blend" price of $14.16 per cwt. was determined using the following factors: (1) a "net" Class I price of $13.23 on 71.94% of the milk marketed (2) the "net" price for Class II of $18.02 on 11.05% of the milk; (3) a "net" price of $12.10 on 14.27% of the milk used for Class II products; and, (4) the "net" Class IV price of $29.84 on 2.74% of the milk marketed. Because of the current relative "high" prices for butterfat, the "net" milk price for each class of milk reveals some rather surprising results (especially for the Class IV "net" price**).**

Upcoming Events

February 1 – 3
Dixie Junior Round-Up Dairy Show

Jackson, MS.

February 5 – 6

Southern Dairy Conference
Atlanta, GA.

February 15

Mississippi DHIA and Mississippi ADA
Annual Meeting
Mississippi Farm Bureau Federation Building
Jackson, MS.

Uniform or "BLEND" Price -September 2000

North Mississippi:	**$13.96**
North Central Mississippi:	**$14.16**
South Central Mississippi:	**$14.36**
South Mississippi:	**$14.46**
Coastal Mississippi:	**$14.56**

Class I Price for November 2000(Advanced Price

North Mississippi:	**$14.72**
North Central Mississippi:	**$14.92**
South Central Mississippi:	**$15.12**
South Mississippi:	**$15.22**
Coastal Mississippi:	**$15.32**