

The actions delineated below were taken in open session of the Kentucky Agricultural Development Board at the August 19, 2022 business meeting. This is provided in summary form; an official record of the meeting is available in the permanent records of the Kentucky Office of Agricultural Policy, 404 Ann Street, Frankfort, Kentucky 40601.



**Kentucky Agricultural Development Board  
Summary Minutes of the Regular Business Meeting  
August 19, 2022  
Kentucky State Fair South Wing C-101  
Louisville, KY 40209**

**Call to Order**

Commissioner of Agriculture Ryan Quarles presiding, called the Kentucky Agricultural Development Board (KADB) regular business meeting to order at 10:03 a.m. (EDT).

**Roll Call**

The following members were present: Commissioner of Agriculture Ryan Quarles, Marc Farris (designee for Governor Andy Beshear), Dean Nancy Cox, Bobby Foree, Sarah Butler (designee for Secretary Larry Hayes), Fritz Giesecke, Dr. Gordon Jones, Al Pedigo, Matt Hinton, Wayne Hunt, Mark Barker, Brenda Paul, Dr. Kirk Pomper (designee for KSU Interim President Dr. Ronald Johnson), and Michael Peterson.

**Absent Members:** Suzanne Cecil White and Tom McKee.

**Notification of Media**

Commissioner Quarles received verification from Hannah Johnson, Boards and Special Events Manager, that the media had been notified of the KADB monthly meeting.

**Welcome**

Commissioner Quarles welcomed everyone to the KADB meeting. Board members and guests participated in person.

**Kentucky Department of Agriculture Report**

Commissioner Quarles updated the board on activities of the Kentucky Department of Agriculture (KDA).

**Deputy Executive Director's Report**

Commissioner Quarles called on Bill McCloskey, KOAP Deputy Executive Director, to present the compliance and financial report to the board.

Mr. McCloskey referenced the Kentucky Agricultural Development Fund State Pool Tobacco Funds (*on file*) as of August 1, 2022.

Mr. McCloskey reviewed Kentucky Agricultural Development Fund County Balances (*on file*) as of August 1, 2022.

Mr. McCloskey reviewed the KAFD Statement of Financial Position (*on file*) as of July 31, 2022.

Mr. Hunt moved to approve the Financial Report, as presented. Mr. Foree seconded the motion.

VOTE: Motion Passed; Unanimous.

**Meat Processing Expansion Committee**

Commissioner Quarles called on Wayne Hunt to give the Meat Processing Expansion Committee report.

Mr. Hunt moved to accept the committee report, as presented; Mr. Giesecke seconded the motion.

VOTE: Motion Passed; Unanimous.

**Approval of Minutes**

Commissioner Quarles entertained a motion to approve the minutes of the July 15, 2022 board meeting

Ms. Paul moved to approve the minutes, as presented; Mr. Pedigo seconded the motion.

VOTE: Motion Passed; Unanimous.

**Project Time Extensions**

Mr. McCloskey referenced (3) projects requesting a time extensions (*on File*).

**A2021-0017 Glen Dean Farms, Inc**

**A2021-0015 Isaac Miller**

**A2020-0101 Bill Flaughner**

Staff recommended approval of three time extensions request.

Ms. Paul moved to approve the staff recommendation, as presented; Dr. Jones seconded the motion.

VOTE: Motion Passed; Unanimous.

**4% County Agricultural Development Council Administrative Fund**

Nick Van Over presented memorandum (*on file*) regarding 4% County Agricultural Development Council Administrative Fund. Staff recommends approval of \$10,000 in county funds for Taylor County as part of the 4% County Agricultural Development Council Administrative Funds.

Mr. Hinton moved to approve the staff recommendation, as presented; Mr. Barker seconded the motion.

VOTE: Motion Passed; Unanimous.

**New Business**

**New Applications for Referral**

Commissioner Quarles called on Mr. McCloskey to present the new applications for referral.

Mr. McCloskey referenced six (6) new applications for referral.

Mr. Foree moved to refer the submitted applications to the appropriate committees; Mr. Giesecke seconded the motion.

VOTE: Motion Passed; Unanimous.

**Programs Recommended for Approval**

Commissioner Quarles called on Sarah Bryant to present the programs recommended for approval.

Ms. Bryant referenced seven (7) County Agricultural Investment Program (CAIP) applications totaling \$783,412; three (3) Deceased Farm Animal Removal (DAR) applications totaling \$31,250; (2) Shared-Use Equipment Program totaling \$35,625. The total program funding is \$850,287. Staff recommended approval of these applications.

Dr. Jones moved to approve all programs meeting state guidelines, as presented; Mr. Hinton seconded the motion.

VOTE: Motion Passed; Unanimous.

#### **Requested Program Amendments**

Commissioner Quarles called on Ms. Bryant to present the requested program amendments.

Ms. Bryant referenced two (2) counties' request for additional funds for existing CAIPs totaling \$183,135 (Rockcastle and Wayne Counties).

Staff recommended approval of these amendments.

Mr. Pedigo to approve staff recommendation, as presented; Mr. Hinton seconded the motion.

VOTE: Motion Passed; Unanimous.

#### **Projects**

Commissioner Quarles called on Martin Williams and Chelsea Smither to present the following projects

##### **A2022-0035 Loretto Butcher Shop, LLC**

Mr. Williams referenced the above application requesting \$239,645 in state funds to purchase and renovate the current Loretto Butcher Shop facility. The Meat Processing Expansion Committee recommends funding the project up to \$239,645 in state funds as a forgivable loan and any county funds secured shall be awarded in the form of a cost-reimbursement grant in addition to state funds not to exceed 50% of the total project cost, subject to the following terms and conditions.

Mr. Hinton moved to approve the committee recommendation, as presented; Mr. Giesecke seconded the motion.

VOTE: Motion Passed; Unanimous.

##### **A2022-0121 Country Charm Event Barn, LLC**

Ms. Smither referenced the above application requesting \$26,265 in state and county funds to improve the facility with enclosure and add a dining area to be a resource for the community during all seasons. The White Application Review Committee recommends funding the applicant up to \$26,265 in county funds, subject to the terms and conditions.

Mr. Barker moved to approve the committee recommendation, as presented; Dr. Jones seconded the motion.

VOTE: Motion Passed; Unanimous.

#### **Pending Applications**

Mr. McCloskey stated four (4) applications are pending.

A2022-0115 Kentucky Cattlemen's Foundation, Inc.

A2022-0116 Cierra Enterprises

A2022-0141 Greenup County Extension District Board

A2022-0147 Robert W. Brown

No action necessary on pending projects or programs.

**Executive Director's Report**

Commissioner Quarles called on Brian Lacefield, KOAP Executive Director, to present the KOAP Executive Director's report to the board.

Mr. Lacefield gave an overview of his activities since the July board meeting. Mr. Lacefield referenced the 2022 CAIP Administrator trainings, which concluded for the summer. Mr. Lacefield referenced a letter from the Kentucky State Auditor reporting that in their annual review that there was nothing unusual in their findings.

**Closing Remarks**

Commissioner Quarles stated the KADB White Application Review Committee would meet thirty minutes upon adjournment of the KADB business meeting.

The next KADB meeting will be held at the Franklin County Extension Office on September 16, 2022 at 10:00 a.m. (EDT).

**Adjournment**

There being no further business, Commissioner Quarles entertained a motion to adjourn the meeting at 10:57 a.m. (EDT).

Mr. Hinton moved to adjourn the August KADB meeting; Ms. Paul seconded the motion

VOTE: Motion Passed; Unanimous.

APPROVED DATE:

9-19-22

PRESIDING OFFICER:

*Ryan Quarles*  
Commissioner Ryan Quarles

BOARD SECRETARY:

*Hannah Johnson*  
Hannah Johnson, Board Secretary

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1. A detailed list of the New Applications for Referral is attached as Appendix A.
  2. A detailed list of the applications funded under the listed programs is attached as Appendix B.
  3. A detailed list of requested Program Amendments is attached as Appendix C.
  4. A detailed list of time extensions is attached as Appendix D.
  5. A copy of the White Application Review Committee meeting minutes is attached as Appendix E.
  6. A copy of the Meat Processing Expansion Committee minutes is attached as Appendix F.

**New Applications for Referral**

APP #	APPLICANT	COUNTY	Cmte.
A2022-0152	Beechwood Independent Schools <i>School Greenhouse &amp; Lab Equipment</i>	Kenton	White
A2022-0159	Gav's Meat Processing, LLC <i>Meat Processing Facility Renovation</i>	Butler	Processing
A2022-0160	Grain Day, Inc. <i>Ag Expo 2023</i>	Daviess	White
A2022-0161	Kentucky Horticulture Council <i>Project</i>	_ALL	RRC
A2022-0163	Rich Earth Grains, LLC <i>Grain Facility Purchase &amp; Restoration</i>	Clark	White
A2022-0167	Poso Creek Family Dairy, LLC <i>Project</i>	Fulton	White

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Board Meeting

### Programs Recommended for Approval

<b>CAIP</b>			
<b><u>Application</u></b>	<b><u>Program Administrator</u></b>	<b><u>County</u></b>	<b><u>Funds Requested</u></b>
A2022-0136	Jefferson County Soil & Water Conservation District	Jefferson*	\$20,500.00
A2022-0149	Franklin County Cattlemen's Association, Inc.	Franklin	\$170,273.00
A2022-0151	County Agriculture Investment Program Council Inc.	Russell	\$221,000.00
A2022-0153	Magoffin County Agriculture Investment Program Incorporated	Magoffin	\$115,000.00
A2022-0154	Laurel County Cattlemen's Association, Inc.	Laurel	\$100,000.00
A2022-0156	Johnson County Agricultural Advancement Council, Inc.	Johnson	\$80,000.00
A2022-0157	Carlisle County Conservation District	Carlisle	\$82,639.00
			<b>\$789,412.00</b>
<b>Deceased Farm Animal Removal (DAR)</b>			
<b><u>Application</u></b>	<b><u>Program Administrator</u></b>	<b><u>County</u></b>	<b><u>Funds Requested</u></b>
A2022-0148	Franklin County Conservation District	Franklin	\$8,750.00
A2022-0150	Russell County Conservation District	Russell	\$7,500.00
A2022-0158	Hart County Conservation District	Hart	\$15,000.00
			<b>\$31,250.00</b>
<b>Shared-Use Equipment Program</b>			
<b><u>Application</u></b>	<b><u>Program Administrator</u></b>	<b><u>County</u></b>	<b><u>Funds Requested</u></b>
A2022-0155	Green County Cattlemen's Association, Inc.	Green	\$20,625.00
A2022-0162	Rockcastle County Conservation District	Rockcastle	\$15,000.00
			<b>\$35,625.00</b>
<b>Total County Funds Recommended for Approval in Programs:</b>			<b>\$856,287.00</b>

\*Indicates a portion of the project is funded from the "State Funds To Support to Counties with Limited Allocation initiative."

**Requested Program Amendments**

**App #** A2021-0242  
**Applicant Name** Rockcastle County Conservation District  
**Original Amount Approved** \$168,173  
**Execution Date** 12/22/2021  
**Requested Change** The applicant requests an additional \$153,135 in Rockcastle County funds for the *CAIP Program*. The request received a high priority from the County Council.  
 This is the first request for an amendment to this application number. The term of the program shall remain 12-months from the execution date of the original agreement.  
 Approval of this request would bring the program total to \$321,308.  
**Recommend Approval**

**App#** A2022-0056  
**Applicant Name** Wayne County Agricultural Development Council, Inc.  
**Original Amount Approved** \$180,000  
**Execution Date** 06/08/2022  
**Requested Change** The applicant requests an additional \$30,000 in Wayne County funds for the *CAIP Program*. The request received a high priority from the County Council.  
 This is the first request for an amendment to this application number. The term of the program shall remain 12-months from the execution date of the original agreement.  
 Approval of this request would bring the program total to \$210,000.  
**Recommend Approval**

## APPENDIX D: Requested Time Extensions

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**App#** A2021-0017  
**Applicant Name** Glen Dean Farms, Inc  
**Amount Approved** \$30,872 State Funds  
**Execution Date** 08/17/2021  
**Requested Change** The applicant is requesting a time extension for 6-months to complete the project since it has been hard to nail down a builder and costs have gone up.  
\$0 in State funds have been disbursed this far.  
The new deadline will be February 17, 2023.

**Staff Recommends Approval**

**App#** A2021-0015  
**Applicant Name** Isaac Miller  
**Amount Approved** \$6,881  
**Execution Date** 5/4/2021  
**Requested Change** The applicant is requesting another 3-month time extension to complete the project in order to account for some additional costs.  
\$0 in State Funds have been disbursed this far.  
The new deadline will be November 4, 2022.

**Staff Recommends Approval**

**App#** A2020-0101  
**Applicant Name** Bill Flaughner  
**Amount Approved** \$58,999  
**Execution Date** 9/10/2020  
**Requested Change** The applicant is requesting another 3-month time extension to finish the project due to back up on getting concrete poured.  
\$47,557 in State Funds disbursed this far.  
The new deadline will be 12/10/2022.

**Staff Recommends Approval**



## APPENDIX E: White Application Review Committee Minutes

<b>Meeting Date:</b>	8/19/2022
<b>Meeting Location:</b>	Kentucky Exposition Center
<b>Meeting Chair:</b>	Bill McCloskey
<b>Attendees:</b>	Committee Members: Dr. Gordon Jones, Dean Nancy Cox, Dr. Kirk Pomper, Fritz Giesecke, Matt Hinton and Keith Rogers KOAP Staff: Bill McCloskey, Brian Lacefield, Martin Williams, Brian Murphy, Hannah Johnson, Diana Carrier, Sarah Bryant, Chelsea Smither and Jesslyn Watson
<b>Minutes Issued By:</b>	Martin Williams
<b>Meeting Call to Order:</b>	11:28am EST
<b>Meeting Adjourned:</b>	1:23 pm EST

<b>Agenda Items:</b>	
1. A2022-0115	Kentucky Cattlemen's Foundation, Inc. a) Mr. Bill McCloskey gave a quick update on the project since it will go to the full Board for discussion in September.
2. A2022-0116	Cierra Enterprises a) Committee unanimously recommended only county funds to be approved.
3. A2022-0141	Greenup Co. Extension District Board a) Committee unanimously recommended approving the applicant's request for \$249,000 in state funds and \$1,000 in Greenup County funds.
4. A2022-0160	Grain Day, Inc. a) Committee unanimously recommended approving the applicant's request for \$5,000 in Daviess County funds.
5. A2022-0163	Rich Earth Grains, LLC a) Committee unanimously recommended pending the application to collect more information from the applicant as follows: - KCARD Business Plan - County Priority Sheets - Have Charlie Linville attend the next meeting
6. A2022-0167	Poso Creek Family Dairy, LLC a) Committee unanimously recommended pending so that the applicant may present to the KAFC Board in September.
7.	Adjournment

## APPENDIX F : Meat Processing Expansion Committee Minutes

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<b>Meeting Date:</b>	8/26/2022
<b>Meeting Location:</b>	Zoom
<b>Meeting Chair:</b>	Wayne Hunt
<b>Attendees:</b>	Committee Members: Wayne Hunt, Tom McKee, Al Pedigo, Brenda Paul, Bobby Foree, Gordon Jones and Keith Rogers KOAP Staff: Bill McCloskey, Brian Lacefield, Martin Williams, Brian Murphy, Tim Hughes, Hannah Johnson, Chelsea Smither and Jesslyn Watson KCARD: Aleta Botts, Brent Lackey, and Kellie Padgett UK: Dr. Gregg Rentfrow
<b>Minutes Issued By:</b>	Martin Williams
<b>Meeting Call to Order:</b>	9:08 am EST
<b>Meeting Adjourned:</b>	10:22 am EST

### Agenda Items:

1. Meat Processing Feasibility Study Discussion: Mr. Bill McCloskey reviewed with the Committee and suggested including for Board members at the September KADB meeting.
2. Guidelines Discussion: Committee discussed drafting a one page guidelines sheet for meat processing projects that includes:
  - a) Needing a third party consultation
  - b) Working with KCARD
  - c) Securing County Agricultural Development Funds
  - d) Must be seeking USDA certification
  - e) A general maximum request of up to \$250,000, unless the Board sees fit to deviate

\*No more Custom facilities (not seeking USDA) will receive state funds
3. A2022-0147          Robert W. Brown
  - a) Committee discussed Dr. Rentfrow's initial suggestions and recommended applicant to seek a third party consultant.
  - b) Committee unanimously recommended pending the application until information from a third party consultant is provided.
4. A2022-0159          Gav's Meat Processing
  - a) Committee recommended funding the applicant up to \$202,676 in state funds and \$45,000 in Butler County funds as a cost-reimbursement grant. 50% of funding will be released initially as a cost-reimbursement grant. The other 50% will be released as a cost-reimbursement grant once they can verify they receive USDA certification. Keith Rogers made the motion, Brenda Paul seconded the motion. Motion passed unanimously.

## **APPENDIX F : Meat Processing Expansion Committee Minutes**

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<b>Agenda Items:</b>
5. Next Meeting Date: September 22nd, 2022 at 9 am ET on Zoom
6. Adjournment

## **Executive Summary**

The objective of the study is to examine the economic feasibility of a regional beef processing plant located in south central Kentucky that processes 100-250 head a day of cull cows. Critical factors that impact the financial performance of a plant include cow inventory, labor supply, yield of the cows processed, relationship between the price received for its products relative to cost of cows purchased, competitive environment for cull cows, and demand trends for beef, especially ground beef.

From 2011 to 2022, Kentucky beef and dairy cow inventories declined by 5% and 42%, respectively, and total cow inventory levels have decreased by 4% in the 10-state region of Alabama, Georgia, Illinois, Indiana, Kentucky, Missouri, North Carolina, Ohio, Virginia, and Tennessee (USDA Agriculture Marketing Service, 2022). The study includes two project areas— 100 mile radius around Glasgow, KY and 100 mile radius around Somerset, KY. The total cow inventory for both project areas has been declining the past ten years with total cow inventory decreasing by 12% and 9% in the Glasgow and Somerset project areas, respectively (USDA Agriculture Marketing Service, 2022). Cow numbers are expected to continue to decline. In Kentucky, heifer retention in 2022 was down 7% and the total cow herd is at the lowest point it has been since 1968 (Burdine, 2022). The decrease in both number of operators and total cattle inventory available can be attributed to urban sprawl, the competition for land to be used for other agricultural enterprises, age of farmers, and frustrations with cattle prices as well as declining profitability.

In 2021, 78,223 head of beef and dairy cows were sold as slaughter cows through Kentucky and Tennessee stockyards. When divided into the different body condition categories in 2021, the breakdown was boning utility (48%), leans/lights (26%), and breakers (26%). Cows that were considered breakers were an average of 1,459 pounds and leans/lights were an average of 1,114 pounds in 2021 with boning utility cows averaging 1,224 pounds (USDA/NASS, 2022).

The estimated number of beef and dairy slaughter cows available in each project area (Glasgow and Somerset) are very similar. Utilizing a cull rate of 10% for beef cows and a cull rate of 25% for dairy cows, each year there would be an estimated 106,675 cows available in the Glasgow, KY area and 105,765 cows available in the Somerset, KY area. While a plant of this size may source cows from outside of the project areas, it will be to the plant's advantage to source as many cows as possible from the project areas as shipping cattle becomes more expensive and the amount of shrink experienced by the cows increases the longer the distance. Thus, it is assumed that the processing facility will source a majority of the cows from the project areas.

JBS, Tyson, Cargill, and National Beef Packing Company are the largest four beef packing companies in the US, and they are often referred to as the "Big 4." Between them, the "Big 4" have 23 processing facilities with the capacity to process 91,000 head per day of fed cattle, cull cows and bulls combined, and they account for over 80% of steer and heifer processing. With respect to cull cow and bull slaughter processing, the Big 4 does not have

as large a market share as it does with fed cattle. Only JBS and Cargill operate slaughter plants that process cull cows and bulls, and these plants process approximately 8,500 head a day combined (Cattle Buyers Weekly, 2021). However, American Foods Group, the fifth largest beef packing company, currently processes an estimate 5,500 cull cows and bulls a day at four of its plants, and it has announced that it will open a new plant that will process 2,400 head a day of cull cows and fed cattle combined (McCarthy, 2021). Of the 30 largest beef packers, 19 of them operate cull cow and bull slaughter plants, and these plants have a combined processing capacity of over 28,000 head a day (Cattle Buyers Weekly, 2021).

There are two regional cow processing plants operating in the Somerset Project Area. JSW Farm Chop Shop in Hazel Green, KY and Southeastern Provisions in Bean Station, TN that are each currently processing 125-150 head a day. Other key buyers of slaughter cows in the project areas include:

- Beef Solutions (Lexington, KY)
- FPL Food (Augusta, GA)
- Brown Packing (Gaffney, SC)
- Cargill (Wyalusing, PA)
- JBS (Plainwell, MI and Souderton, PA)
- Caviness Beef Packers (Hereford, TX)
- American Foods Group (Green Bay, WI)
- Perry Shelton (TN)
- Randolph Packing Company (Asheboro, NC)

At the meat counter, demand for beef remains strong with CattleFax reporting "beef demand is the highest it's been in 33 years," (Pettrak, 2022). Meat sales in 2021 were 17-20% above pre-pandemic level and fresh beef sales were up over 26% in December 2020 from December 2019 (Pettrak, 2022). Ground beef sales were over \$12.4 billion in 2020. According to data from the USDA, National Agricultural Statistics Service (NASS), sales of local edible farm products in 2017 totaled \$11.8 billion, or 3 percent of all agricultural sales in 2017, up from \$8.7 billion in 2015 (USDA/NASS, 2022). However, there are concerns about beef demand in the near future due to inflation and disposable income for consumers being squeezed (Kay, Will June See Stronger Sales, 2022).

Distributors indicated in interviews that having a Kentucky beef brand to offer to their retail customers was of interest. Distributors noted that there would be interest in sourcing beef for ground beef products, but the premium for local ground beef could not exceed 10% in order to move significant volumes.

In 2021, the volume of beef and beef products imported declined 6.2% from 2020 volumes to 2.48 billion pounds (Cook, 2022). A key driver for the reduction in beef imports is the reduction of beef imported from Australia (Henderson, 2021). "Good demand and higher prices paid in other markets have limited the amount of Australian beef coming to the U.S. and this situation is not expected to change much in 2022," (Henderson, 2021).

For the analysis, the proposed processing facility will have the capability to average processing 125 head a day. To supply a plant of this size, it will require approximately 32,500 cows which equates to approximately 30% of the total cull cows available in each project area, and securing a market share higher than this is thought to be more costly and difficult due to the competitive environment and declining cow inventories. Agricultural economists indicated to KCARD that a new processing plant would have an impact on the price of cull cows sold in the area. They estimated that a 125 head per day plant could increase the average price of cows by 2-4%.

The largest volume of products that will be processed and marketed by the proposed facility will be boneless beef trim. Fresh meat distributors and retail meat store owners emphasized that ground beef is a price driven market and that it is often cheaper for them to grind the meat in house versus paying for a pre-ground product. This information from multiple interviews (both retail meat buyers and other industry professionals), along with the price to purchase the additional equipment needed to grind and package ground beef products, confirmed that the proposed plant would have a higher rate of success if the business focused on selling boneless beef trim.

Boneless beef trim with the highest percent lean generally brings a higher price. To maximize revenue from beef trim sales, the study assumes that plant will market only Fresh 90 (90% lean) and Fresh 50 (50% lean) combos. Approximately 80% of beef trim sold will be in Fresh 90 combos. The plant will also market middle cuts, such as tenderloins and ribeye loins, from the breaker cows it purchases.

In addition to boneless beef trim and middle cuts, the processing facility will be able to market both offal and hides. Offal, or meat by-products, are the organs, head meat, blood, bone, trim, and fat left after breaking down carcasses into meat cuts and processing the animals. During interviews with buyers, USDA representatives, and extension specialists, it was noted that the large processing plants are able to receive more for offal and hides than small plants, and some products like tripe are only economical for plants that process over 500 head a day.

Key customers for the processing facility will include ground beef manufacturing plants and distributors, especially those that have the capability to grind beef such as Critchfield Meats and What Chefs Want. It was recommended by extension specialists and former meat processing plant managers that a new regional beef plant consider using a broker to sell and market its beef, especially in the beginning due to their connections.

Meat processing plants are capital intensive. The size of the beef processing facility is estimated to be 24,500 square feet plus a 3,200 square foot barn to receive and hold the cows. KCARD estimates the start-up costs to be \$12.2 million including \$2.1 million for working capital.

Meeting the labor needs of the processing facility is one of the key issues facing the beef processing industry. "This industry faced a limited employee pool before COVID that's

arguably smaller today,” said Chad Hart, an Iowa State University agricultural economist. “This longer-term issue of finding workers has been there for a while. COVID did not create that. COVID just exacerbated it” (Doering, 2021). Meat processors have moved aggressively to retain and attract workers, including offering higher wages, bonuses and other benefits. In March 2022, American Foods Group held a job fair in Morehead, KY to recruit employees for its plant in Green Bay, WI.

To process 125 head per day, it is estimated that a processing plant will need to have 70-75 full-time employees including 12 managerial and administrative employees. Labor cost, including salaries and wages, payroll expenses, and fringe benefits is the second largest expense for the processing facility with a total of \$3.75 million when it processes 125 head a day.

When comparing Somerset and Glasgow as potential locations for a regional beef processing plant, the analysis found that both locations are very similar. The total cow inventory in the Glasgow project area is 987,700 while the total cow inventory is 987,600 in the Somerset project area. Barren and Pulaski counties have the largest and 3<sup>rd</sup> largest beef cow inventory, respectively, in the project area. The total civilian labor force for Barren County’s labor market area (population 60 miles from the county seat) is 146,431 compared to 98,560 for Pulaski County. Both are located on the Cumberland Parkway, and both are within 30 miles of major interstates (I-65 for Glasgow and I-75 for Somerset).

Glasgow does have a couple of advantages. First, KCARD did not identify any regional cow slaughter processing plants in its project area while KCARD did identify two in the Somerset project area—JSW Chop Shop in Hazel Green, KY and Southeastern Provisions in Beans Station, TN. Secondly, Glasgow is located within 85 miles of a potential major customer—Tyson’s ground beef plant in Goodlettsville, TN.

It is critical that the proposed facility understand the relationship between the price of boneless beef trim relative to the price of slaughter cows, as it is a critical factor in its profitability. The average spread between the value of a processed cow and live cost was calculated from January 2011 to March 2022. The average spread during this period was \$15.28 per CWT. The spread ranged from \$(9.02) in June 2014 to \$51.95 in November 2021. During the last 6 months of 2021, the spread was relatively high ranging from \$35.57 per CWT in July to \$51.95 in November. However, during the first quarter of 2022 the spread started declining, and it was only \$15.08 in March. The spread has been much higher for the last five years with the average spread since January 2017 being \$24.97 per CWT. The volatility of this calculated price spread shows that a plant must look at prices of cows and beef trim over a long period of time to calculate expected profitability, and it highlights the risk of overestimating profits or losses if the projections only focus on a specific or short time frame.

Key assumptions used in the development of the financial projections for the processing facility include:

- It will take 3 years for the plant to reach maturity and average processing 125 head per day.

- Both, the price paid for cows and price received for the facility were based upon 5-year averages (April 2017 through March 2022) to better average out the volatility of the cattle and beef market and the short-term impacts of the COVID-19 pandemic. Also, it was assumed that the facility would receive a discounted price for its offal and hides relative to drop value reported by the large packers. Key 5-year average prices used in the analysis were:
  - \$58.30 per live cwt for breakers
  - \$55.94 per live cwt for boning utility
  - \$49.96 per live cwt for leans/lights
  - \$232.40 per cwt for Fresh 90
  - \$81.41 per cwt for Fresh 50
  - \$9.84 per live cwt for drop value for offal and hides
  - \$420.32 per cwt for middle cuts
  
- During interviews, agricultural economists indicated that the price of slaughter cows in the project area would increase by an estimated 2-4% as result of the increase in demand from the opening of a plant that processed 100-150 head per day. To be able to source cows, it is assumed the price for slaughter cows would increase by 2.5%.
  
- The processing facility will need to offer an average wage of \$17 per hour to its plant employees and fringe benefits to all its hourly and salaried employees to attract the necessary labor supply.
  
- Based on the percentage of cull cows that were sold at Kentucky and Tennessee auctions, the breakdown of slaughter cows purchased for the plant would be as follows: 26% of the cows would be breakers at 1,435 pounds, 48% would be considered boning utility at 1,217 pounds, and 26% would be considered leans/lights at 1,047 pounds.
  
- Based on industry research and interviews, the following carcass yields are used: 54% for breakers, 50% for boning utility, and 47% for leans/lights. A cutting yield of 70% was then used to estimate the total meat available per animal.



*Expected Yield by Body Condition (in pounds)*

	Leans/Lights	Boning Utility	Breakers
Live Weight	1,047	1,217	1,435
Carcass Weight	492	609	775
Boneless Beef	344	426	482
Strip, Tenderloin, Ribeye Roll			61

Based upon the key financial assumptions used in the analysis, a regional cow processing plant does not generate positive economic returns. The sales revenue for the processing facility is expected to reach \$29 million when it average 125 head a day, but it is still not projected to cover all its expenses. The projected net incomes for the processing facility for the first five years are as follows:

- Year 1: **(\$1,710,656)**
- Year 2: **(\$1,393,943)**
- Year 3 **(\$1,067,565)**
- Year 4 **(\$1,080,536)**
- Year 5: **(\$1,081,913)**

Due to the number of key variables that impact the financial projections of the proposed processing facility, sensitivity analysis was conducted to determine the impact in changing those variables. Through this analysis, KCARD identified the following four scenarios where the processing plant generates positive net income.

- **1-year Average Prices:** If the price paid for cow purchases and received for beef products is based upon the period of April 2021 to March 2022, the profitability of the processing plant increases substantially, and it has a projected net income of \$1.49 million in year 3 when it processes 125 head a day. The beef processing facility would have a profit margin of 4.3% and ROI of 11.9% when it processes 125 head a day. At this level of prices, the estimated payback period for the plant would be seven years.
- **Lower Cost Paid for Cows and Labor:** If the average price of cows does not increase by the estimated 2.5% and the plant is able to pay \$15.50 per hour to plant employees with no fringe benefits, the projected net income for the processing facility in year 3 is \$106,216. The processing facility would have both a profit margin and ROI under 1%, and it would have an estimated payback period of over 30 years.
- **Only Purchase Breaker and Lean Cows:** The ability to pull middle cuts from breakers and the high percentage of lean meat from leans makes processing breakers and leans more profitable. If the breakdown of cow purchases for the plant was 50% breakers and 50% leans, then the projected net income in year 3 would be \$288,761. The processing would have a profit margin of 0.95% and a ROI

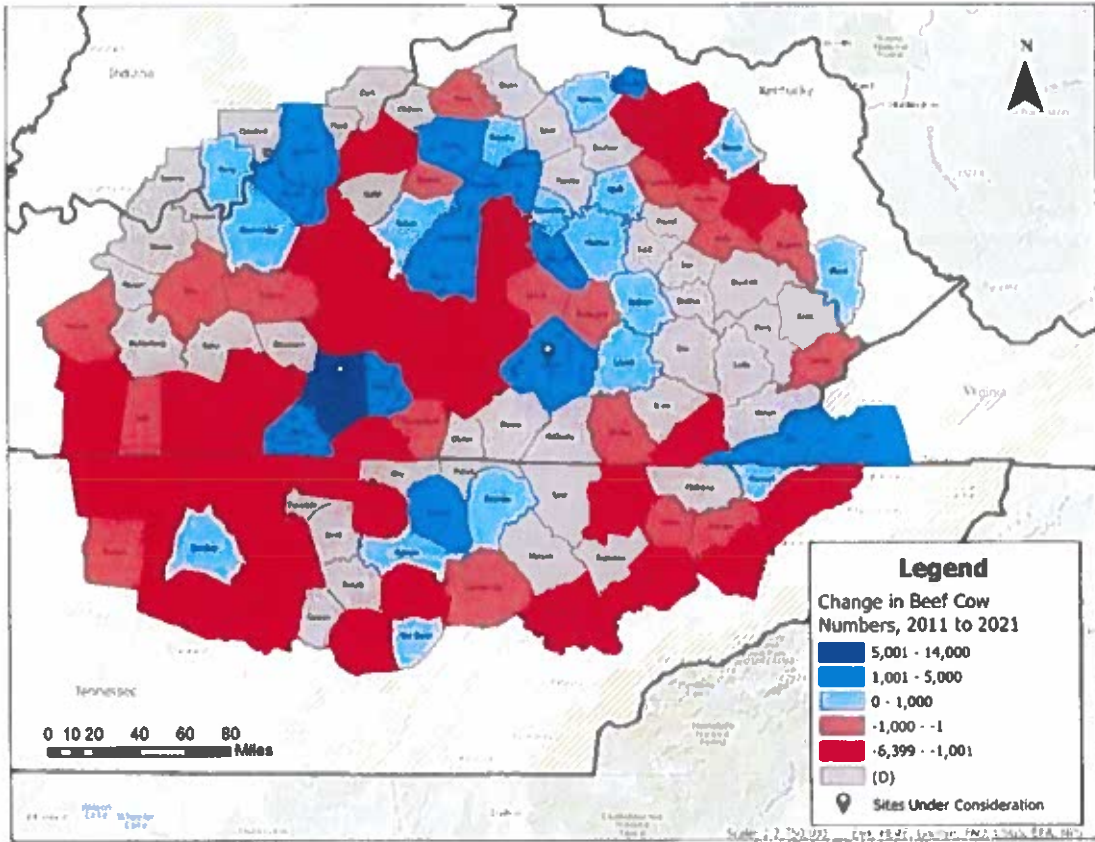
of 2.36% under this scenario. The plant would have an estimated payback period of over 20 years.

- **Lower Cost Paid for Cows and Labor PLUS Only Purchase Breaker and Lean Cows:** If the average price of cows does not increase by the estimated 2.5% and the plant is able to pay \$15.50 per hour to plant employees with no fringe benefits and the plant purchase 50% breakers and 50% leans then the projected net income for the beef processing facility in year 3 is \$1.39 million. The processing facility would have a profit margin of 4.6% and ROI of 11.5%, and the estimated payback period would be 7.5 years.

Each scenario is broken down below.

	<b>Original Model</b>	<b>1-year Average Prices</b>	<b>Lower Cost Paid for Cows and Labor</b>	<b>Only Purchase Breakers and Leans</b>	<b>Lower Cost Paid + Only Purchase Breakers and Leans</b>
Total Sales Income	\$29,087,183.08	\$34,919,501	\$ 29,087,183.08	\$30,397,033.21	\$30,328,338.07
COGS	\$27,431,247.84	\$30,699,036	\$ 27,431,247.84	\$27,384,914.87	\$26,224,560.91
Gross Profit	\$1,655,935.25	\$4,220,465	\$ 1,655,935.25	\$3,012,118.35	\$4,103,777.16
Operating Expenses	\$1,802,808.19	\$1,802,808	\$ 1,802,808.19	\$1,802,808.19	\$1,794,370.69
Interest +					
Depreciation	\$970,692.79	\$980,877	\$ 967,019.71	\$970,692.79	\$966,879.41
Net Income	-\$1,067,565.73	\$1,486,780	\$ 106,216.02	\$288,761.77	\$1,392,527.06

Figure 8 Change in Beef Cow Inventory for the Project Area from 2011-2021



Source: (USDA/NASS, 2022) NOTE: This map does not print accurately in black-and-white. Figure 25 in the Appendix can be printed in black and white.

Table 5 Top 5 Counties in the Project Area with the Largest Beef Cow Gains or Loss from 2011-2021

County Name	State	Beef Cow Gain	County Name	State	Beef Cow Loss
Barren	KY	14,000	Bell	KY	(6,399)
Garrard	KY	4,900	Warren	KY	(4,000)
Washington	KY	3,500	Christian	KY	(3,900)
Scott	VA	2,600	Bath	KY	(3,800)
Lee	VA	2,000	Logan	KY	(3,600)

Source: (USDA/NASS, 2022)

Table 30 Income Statement for 125 Head per Day

Income Statement						
Income	Start-Up	Year 1	Year 2	Year 3	Year 4	Year 5
Beef Trim Sales		\$ 20,091,430.83	\$ 22,602,859.69	\$ 25,114,288.54	\$ 25,616,574.31	\$ 26,370,002.97
Sales of Retail Cuts		\$ 1,666,568.80	\$ 1,874,889.90	\$ 2,083,211.00	\$ 2,124,875.22	\$ 2,187,371.55
By-product--Hide and Offal		\$ 1,209,397.47	\$ 1,530,643.67	\$ 1,889,683.54	\$ 1,927,477.22	\$ 1,984,167.72
<b>Total Sales Income</b>	\$	\$22,967,397	\$26,008,393	\$29,087,183	\$29,668,927	\$30,541,542
<b>Cost of Goods Sold</b>						
Production Labor Expenses		\$ 1,700,000.00	\$ 1,912,500.00	\$ 2,125,000.00	\$ 2,167,500.00	\$ 2,231,250.00
Payroll Expenses		\$ 170,000.00	\$ 191,250.00	\$ 212,500.00	\$ 216,750.00	\$ 223,125.00
Employee Benefits		\$ 340,000.00	\$ 382,500.00	\$ 425,000.00	\$ 433,500.00	\$ 446,250.00
Livestock Purchases		\$ 17,397,814.50	\$ 19,572,541.32	\$ 21,747,268.13	\$ 22,182,213.49	\$ 22,834,631.54
Supplies & Packaging		\$ 1,335,159.79	\$ 1,502,054.76	\$ 1,668,949.73	\$ 1,702,328.73	\$ 1,752,397.22
Transportation		\$ 307,370.00	\$ 345,791.25	\$ 384,212.50	\$ 391,896.75	\$ 403,423.13
Electric		\$ 167,500.00	\$ 188,437.50	\$ 209,375.00	\$ 213,562.50	\$ 219,843.75
Water & Sewer		\$ 89,687.50	\$ 100,898.44	\$ 112,109.38	\$ 114,351.56	\$ 117,714.84
CO2		\$ 437,466.48	\$ 492,149.79	\$ 546,833.10	\$ 557,769.76	\$ 574,174.75
<b>Total COGS</b>		\$21,944,998	\$24,688,123	\$27,431,248	\$27,979,873	\$28,802,810
<b>Gross Profit</b>		\$1,022,399	\$1,320,270	\$1,655,935	\$1,689,054	\$1,738,732
<b>Other Income</b>						
Other income		\$50,000	\$50,000	\$50,000	\$50,000	\$50,000
<b>Operating Expenses</b>						
Administrative Salaries		\$ 760,000.00	\$ 760,000.00	\$ 760,000.00	\$ 798,000.00	\$ 837,900.00
Payroll Expenses		\$ 76,000.00	\$ 76,000.00	\$ 76,000.00	\$ 79,800.00	\$ 83,790.00
Employee Benefits		\$ 152,000.00	\$ 152,000.00	\$ 152,000.00	\$ 159,600.00	\$ 167,580.00
Phone & Internet		\$ 27,000.00	\$ 27,000.00	\$ 27,000.00	\$ 27,000.00	\$ 27,000.00
Advertising & Marketing		\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00	\$ 5,000.00
Equipment Lease		\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00	\$ 24,000.00
Office Expenses		\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00
Repair & Maintenance		\$ 87,852.50	\$ 89,609.55	\$ 94,090.03	\$ 96,912.73	\$ 101,758.37
Insurance		\$ 226,500.00	\$ 236,062.50	\$ 245,625.00	\$ 247,537.50	\$ 250,406.25
Professional Fees		\$ 18,000.00	\$ 18,000.00	\$ 18,000.00	\$ 18,000.00	\$ 18,000.00
Licenses & Fees		\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00
Pest Control		\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00	\$ 2,500.00
Laundry & Uniforms		\$ 94,500.00	\$ 94,500.00	\$ 94,500.00	\$ 94,500.00	\$ 94,500.00
GFSI		\$ 30,000.00	\$ 7,000.00	\$ 7,000.00	\$ 7,000.00	\$ 7,000.00
Consultants--food safety		\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00
Lab testing		\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00	\$ 15,000.00
Property Taxes		\$ 91,758.00	\$ 91,758.00	\$ 93,593.16	\$ 93,593.16	\$ 93,593.16
Janitorial		\$ 50,000.00	\$ 50,000.00	\$ 51,000.00	\$ 51,000.00	\$ 51,000.00
Miscellaneous		\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00	\$ 60,000.00
<b>Total Operating Expenses</b>	\$	\$1,797,611	\$1,785,930	\$1,802,808	\$1,856,943	\$1,916,528
<b>Net Operating Income</b>	\$	\$ (725,211.67)	\$ (415,659.85)	\$ (96,872.94)	\$ (117,889.44)	\$ (127,795.77)
Interest		\$ 566,142.09	\$ 558,981.01	\$ 551,390.26	\$ 543,344.07	\$ 534,815.11
Depreciation		\$ 419,302.52	\$ 419,302.52	\$ 419,302.52	\$ 419,302.52	\$ 419,302.52
<b>Net Income</b>	\$	-\$1,710,656.29	-\$1,383,943.38	-\$1,067,565.73	-\$1,080,536.03	-\$1,081,913.40

Table 31 Cash Flow Statement for 125 Head per Day

Cash Flow Projections						
	Start-up	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Sources of Funds</b>						
Beginning Cash Balance	\$	\$ 3,046,876.63	\$ 485,937.14	\$ (826,767.32)	\$ (1,822,644.40)	\$ (2,703,779.92)
Owner Contribution	\$ 2,446,425.38	\$ -	\$ -	\$ -	\$ -	\$ -
Loan	\$ 9,435,701.51	\$ -	\$ -	\$ -	\$ -	\$ -
KADF Forgivable Loan	\$ 250,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
KADF Grants	\$ 100,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
Sales Income	\$ -	\$ 22,967,397.10	\$ 26,008,393.26	\$ 29,087,183.08	\$ 29,668,926.75	\$ 30,541,542.24
<b>Total Sources of Funds</b>	<b>\$ 12,232,126.88</b>	<b>\$ 22,967,397.10</b>	<b>\$ 26,008,393.26</b>	<b>\$ 29,087,183.08</b>	<b>\$ 29,668,926.75</b>	<b>\$ 30,541,542.24</b>
<b>Uses of Funds</b>						
Land	\$ 400,000.00	\$ -	\$ -	\$ -	\$ -	\$ -
Building	\$ 6,189,500.00	\$ -	\$ -	\$ -	\$ -	\$ -
Equipment	\$ 2,595,750.25	\$ -	\$ -	\$ -	\$ -	\$ -
Loan Payments	\$ -	\$ 685,493.44	\$ 685,493.44	\$ 685,493.44	\$ 685,493.44	\$ 685,493.44
COGS	\$ -	\$ 21,944,998.27	\$ 24,688,123.05	\$ 27,431,247.84	\$ 27,979,872.79	\$ 28,802,810.23
Operating Expenses	\$ -	\$ 1,797,610.50	\$ 1,785,930.05	\$ 1,802,808.19	\$ 1,856,943.39	\$ 1,916,527.78
Owners Draw	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Total Uses of Funds</b>	<b>\$ 9,185,250.25</b>	<b>\$ 24,428,102.22</b>	<b>\$ 27,159,546.55</b>	<b>\$ 29,919,549.47</b>	<b>\$ 30,522,309.63</b>	<b>\$ 31,404,831.45</b>
<b>Funds Generated</b>	<b>\$ 3,046,876.63</b>	<b>\$ (1,460,705.12)</b>	<b>\$ (1,151,153.29)</b>	<b>\$ (832,366.39)</b>	<b>\$ (853,382.88)</b>	<b>\$ (863,289.21)</b>
Inventory Adjustment	\$ -	\$ (175,559.99)	\$ (21,945.00)	\$ (21,945.00)	\$ (4,389.00)	\$ (6,583.50)
A/R Adjustment	\$ -	\$ (1,913,949.76)	\$ (253,416.35)	\$ (256,565.82)	\$ (48,478.64)	\$ (72,717.96)
A/P Adjustment	\$ -	\$ 989,275.37	\$ 113,810.18	\$ 115,000.12	\$ 25,115.01	\$ 36,771.74
<b>Net Funds Generated</b>	<b>\$ 3,046,876.63</b>	<b>\$ (2,560,939.49)</b>	<b>\$ (1,312,704.46)</b>	<b>\$ (995,877.08)</b>	<b>\$ (881,135.51)</b>	<b>\$ (905,818.93)</b>
<b>Ending Cash Balance</b>	<b>\$ 3,046,876.63</b>	<b>\$ 485,937.14</b>	<b>\$ (826,767.32)</b>	<b>\$ (1,822,644.40)</b>	<b>\$ (2,703,779.92)</b>	<b>\$ (3,609,598.85)</b>

Table 32 Balance Sheet for 125 Head per Day

Balance Sheet Projections					
Current Assets	Year 1	Year 2	Year 3	Year 4	Year 5
Cash	\$ 485,937.14	\$ (826,767.32)	\$ (1,822,644.40)	\$ (2,703,779.92)	\$ (3,609,598.85)
Accounts Receivable	\$ 1,913,949.76	\$ 2,167,366.10	\$ 2,423,931.92	\$ 2,472,410.56	\$ 2,545,128.52
Inventory	\$ 175,559.99	\$ 197,504.98	\$ 219,449.98	\$ 223,838.98	\$ 230,422.48
<b>Total Current Assets</b>	<b>\$ 2,575,446.88</b>	<b>\$ 1,538,103.77</b>	<b>\$ 820,737.50</b>	<b>\$ (7,530.37)</b>	<b>\$ (834,047.84)</b>
<b>Fixed Assets</b>					
Building	\$ 6,589,500.00	\$ 6,589,500.00	\$ 6,589,500.00	\$ 6,589,500.00	\$ 6,589,500.00
Equipment	\$ 2,595,750.25	\$ 2,595,750.25	\$ 2,595,750.25	\$ 2,595,750.25	\$ 2,595,750.25
Accumulated Depreciation	\$ (419,302.52)	\$ (838,605.05)	\$ (1,257,907.57)	\$ (1,677,210.09)	\$ (2,096,512.61)
<b>Total Fixed Assets</b>	<b>\$ 8,765,947.73</b>	<b>\$ 8,346,645.21</b>	<b>\$ 7,927,342.68</b>	<b>\$ 7,508,040.16</b>	<b>\$ 7,088,737.64</b>
<b>Total Assets</b>	<b>\$ 11,341,394.61</b>	<b>\$ 9,884,748.97</b>	<b>\$ 8,748,080.19</b>	<b>\$ 7,500,509.79</b>	<b>\$ 6,254,689.79</b>
<b>Current Liabilities</b>					
Accounts Payable	\$ 989,275.37	\$ 1,103,085.55	\$ 1,218,085.67	\$ 1,243,200.67	\$ 1,279,972.42
<b>Total Current Liabilities</b>	<b>\$ 989,275.37</b>	<b>\$ 1,103,085.55</b>	<b>\$ 1,218,085.67</b>	<b>\$ 1,243,200.67</b>	<b>\$ 1,279,972.42</b>
<b>Long-Term Liabilities</b>					
Bank Loan	\$ 9,316,350.15	\$ 9,189,837.72	\$ 9,055,734.54	\$ 8,913,585.17	\$ 8,762,906.83
KADF Forgiveable Loan	\$ 200,000.00	\$ 150,000.00	\$ 100,000.00	\$ 50,000.00	\$ -
<b>Total Liabilities</b>	<b>\$ 10,505,625.52</b>	<b>\$ 10,442,923.26</b>	<b>\$ 10,373,820.20</b>	<b>\$ 10,206,785.84</b>	<b>\$ 10,042,879.25</b>
<b>Equity</b>					
Owner Contribution	\$ 2,446,425.38	\$ 2,446,425.38	\$ 2,446,425.38	\$ 2,446,425.38	\$ 2,446,425.38
Grants	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00	\$ 100,000.00
Retained Earnings	\$ -	\$ (1,710,656.29)	\$ (3,104,599.67)	\$ (4,172,165.40)	\$ (5,252,701.43)
Net Income	\$ (1,710,656.29)	\$ (1,393,943.38)	\$ (1,067,565.73)	\$ (1,080,536.03)	\$ (1,081,913.40)
<b>Total Equity</b>	<b>\$ 835,769.09</b>	<b>\$ (558,174.29)</b>	<b>\$ (1,625,740.02)</b>	<b>\$ (2,706,276.05)</b>	<b>\$ (3,788,189.46)</b>
<b>Total Liabilities + Equity</b>	<b>\$ 11,341,394.61</b>	<b>\$ 9,884,748.97</b>	<b>\$ 8,748,080.19</b>	<b>\$ 7,500,509.79</b>	<b>\$ 6,254,689.79</b>