# Costs and Benefits of Implementing Inert Gas Killing, Mechanical Gathering, and the Animal Care Standards (ACS)

KFC s suppliers will incur some initial costs associated with making PETA s recommended changes to their production methods. However, these costs will be quickly offset by the ongoing savings resulting from increased production efficiency and decreased production costs, as well as from the cessation of PETA s campaign against KFC. Although KFC will certainly save money by agreeing to adopt PETA s minimum recommendations, it must not be forgotten that this decision is also a moral one: Simply put, chickens should not be denied their every natural desire, should not be bred and drugged so that they become crippled by their own weight, and should not be subjected to the horrors of KFC s present method of slaughter.

**I. Inert-Gas Killing Systems**

The initial cost of switching from electrical stunning to inert-gas killing during which birds are killed in transport containers prior to shackling can easily be offset and surpassed by gains realized from improved carcass quality and meat yield and decreased costs for things like refrigeration, storage, labor, and environmental cleanup (described in greater detail below). Raj (1998, p 4) explains that there are also numerous indirect financial benefits and that [i]t will be unrealistic to put a price tag on improved bird welfare, opportunity to develop new process technology and the market lead. That is, interest in KFC s brand will increase if it leads the industry in advancing technologies that will reduce cruelty throughout the chicken industry. Inert-gas killing will save KFC money and improve bird welfare.

**Start-Up Costs**

A European Commission draft document on the Best Available Techniques in the Slaughterhouses and Animal By-products Industries (EIPPCB 2003) estimates that the total cost for the complete installation of one inert-gas killing processing line is around $1.3 million (all monetary figures in this paragraph have been converted to U.S. dollars using the exchange rates as of May 30, 2003, and have been adjusted for inflation from 1995 to 2002 using the *Columbia Journalism Review* s Dollar Conversion Calculator Web site). Using figures from Anglia Autoflow Ltd. (www.aaflow.org), one of the the leading European manufacturers of gassing systems designed to kill birds in transport crates prior to shackling, Raj (1998) broke down the total and estimated that, in order to maintain a line speed of 70,000 birds per day, approximately 240 modules, holding 288 birds each, would be needed, at an approximate cost of $2,322 per unit or $557,280 for 240. The gassing equipment itself would cost approximately $387,095, and the loading machinery would cost another $387,095. It is important to note, however, that with the rapid improvements in equipment technology within this sector, it is expected that these costs would be even lower today (Raj 1998).

According to Anglia Autoflow s sister company, American Autoflow, Inc., which serves North and South America, the average price for an in-plant Easyload system fitted with gas stunning; washer; automatic drawer loading and unloading is approximately 1.5 million USD (Burgos 2003). Ian Taylor, sales director of American Autoflow, also explains (Taylor 2003) that if the source of the live birds is in close proximity to the slaughterhouse, which is often the case, or if the producers already have a drawer system in place, as is reportedly the case with some KFC suppliers, such as Perdue Farms, Inc., then loading modules can be double-shifted at no additional cost, allowing the system to process approximately 128,000 birds per day (two 8-hour shifts running at 8,000 birds per hour). However, if additional modules are required to double-shift the line, Taylor estimates that the added cost would be only about $350,000 more than the initial $1.5 million investment. Thus, according to this estimate, which was provided in

September 2003, between $1.5 million and $1.85 million would be required to install a gas killing line capable of processing 46,720,000 birds per year (with two shifts running daily).

According to KFC s Web site (www.kfc.com/about/facts.htm as of Dec. 31, 2002), the company processes 351 million chickens for consumption every year in the U.S. and 736 million worldwide. A slaughter line that processes 128,000 birds per day will process 46,720,000 per year, and therefore, about 8 such lines would be needed to maintain KFC s annual U.S. rate, and about 16 lines would be needed worldwide. Based on American Autoflow s estimates, the start-up cost for installing the 8 gas killing lines required to meet KFC s current U.S. production levels would be between $12 million and $14.8 million. Installing the 16 gas killing lines needed to meet KFC s worldwide production levels would cost between $24 million (without extra modules) and $29.6 million (with extra modules). As explained below, these costs will be rapidly offset.

**Operating Costs**

According to the EIPPCB (2003), the estimated operating costs of using an 80 percent nitrogen/20 percent argon mixture are between 58 and 97 cents per 100 birds (0.58 to 0.97 cents per bird). According to a recent article in *WATT Poultry USA*, Ian Taylor from American Autoflow estimates that the gas cost of stunning is between 0.5 and 0.75 cents per bird. For a line that processes 128,000 birds per day, these figures translate to between $640 and $1,241. Once the benefits of using gas killing (as described below) and the current operating costs of using electrical stunning are subtracted, these costs are relatively insignificant. Figure 1 uses the estimates above to summarize the minimum and maximum costs of gas for various operations which, according *The Washington Post*, represent typical-sized commercial poultry slaughterhouses (Goodman 1999):

**Figure 1:** Weekly Cost of Gas for Slaughterhouses

| Number of birds slaughtered per week | Minimum cost | Maximum cost |
|---:|---:|---:|
| 490,000 | $2,450 | $4,753 |
| 580,000 | $2,900 | $5,626 |
| 730,000 | $3,650 | $7,081 |
| 896,000 | $4,480 | $8,691 |
| 980,000 | $4,900 | $9,506 |
| 1,000,000 | $5,000 | $9,700 |
| 1,250,000 | $6,250 | $12,125 |

Based on these figures, the total cost of gas for slaughtering the 351 million birds KFC processes for U.S. consumption each year is between $1,755,000 and $3,404,700. For the 736 million birds it processes worldwide, the annual cost of gas would be between $3,680,000 and $7,139,200.

**Savings From Improved Meat Yield and Quality**

(Please note: The figures in this section have been calculated using the 1995 U.S. market rates and have been adjusted for inflation from 1995 to 2002.)

Gas killing provides producers with improved meat yield and carcass quality when compared to different types of electrical stunning methods, which are frequently criticised on meat quality grounds ( Raj et al. 1997, p 169). In fact, the European Commission s Scientific Committee on Animal Health and Animal Welfare (1998, p 3) writes that [a] nother advantage of gas stunning or gas killing methods, in comparison with electrical stunning, is that they may improve carcass and meat quality. **These improvements include fewer broken bones, less hemorrhaging, and reduced bruising.**

Farsaie et al. (1983) report that **bruising may be found on up to 25 percent of broilers** processed in the U.S., and according to the United States Department of Agriculture (USDA 2002), **in a recent year,**

**almost a million carcasses were condemned due to bruising. Such bruising could be virtually eliminated through the use of gas killing**, which would improve the yield and the value of products (EIPPCB 2003, p 288) and almost completely eliminate blood stains (Raj 2003), which also cut into profits. Specifically, gassed broilers showed a lower incidence of broken bones and breast- and leg-muscle bruising. It has been suggested that the increased incidence of leg bruising from electrical stunning was a direct result of shackling live birds, a process which would be eliminated through the use of gas killing. Even industry journals recognize this problem: A recent article in *Poultry* (McGuire 2003, p 2) reports that [d] uring processing, shackles can be too tight and the hanging of the bird too rough, which causes more severe bruising in the thigh areas. And the Canadian Food Inspection Agency (1999a) found that the use of controlled atmosphere stunning [gassing] in poultry reduces the incidence of broken bones, bruises and haemorrhages in muscle, all of which are commonly associated with electrical stunning. Researchers at the University of Bristol (Raj et al. 1997, p 173) compared the carcasses of gas-stunned broilers with those of electrically stunned broilers and concluded that the incidence of broken bones and breast-muscle hemorrhaging would be substantially reduced by gas killing of broilers. Raj and Gregory (1991, p 127) also found this to be the case and concluded that the advantages of gaseous stunning include improved meat quality, fewer broken bones and less muscle haemorrhaging in the carcasses.

Even a small increase in meat yield per bird due to gas killing would lead to a significant increase in revenue, which would **easily and quickly offset the initial costs of adopting gas killing methods.** With as little as a 1 percent increase in yield, Raj (1998) estimates that, for a plant that processes 1.3 million broilers per week (or 67.6 million per year) estimating the average dressed-carcass weight at 2 kg and the market value at $2.2 per kg of boneless breast meat an additional $950,400 in revenue (or 1.402 cents per bird) can be gained per year. Applying this estimate to the 351 million chickens slaughtered by KFC in the U.S. each year, an additional revenue of $4,921,020 per year would be achieved, and applying it to the 736 million birds slaughtered internationally, **an additional $10,318,720 in revenue would be achieved**. Reducing the number of dead on arrivals by eliminating the dumping and other rough handling that is inherent to electrical stunning would provide yet another source of increased revenue, probably into the millions of dollars. It is also important to note that the significant rearing costs associated with each bird (i.e., feeding, housing, lighting, transport, etc.) are completely lost when a carcass is condemned or discarded. By increasing meat yield, producers that use gas killing would be able to recoup these otherwise-wasted costs, providing yet another financial advantage of this method.

**Savings From Reduced Refrigeration and Energy Costs**

Raj et al. (1997) found that the pH in carcasses falls more rapidly when gas killing is used than when electrical stunning is used, resulting in faster carcass maturation and enabling early filleting. This has important financial implications, as refrigeration can be significantly reduced, thus saving on storage, energy, refrigeration equipment, and maintenance costs. The EIPPCB (2003, p 287) also reports that gas killing results in [r]educed energy consumption due to reduced refrigeration time and space requirements because it is no longer necessary to mature the carcasses.

**Savings From Improved Shelf Life and Quality**

Raj (1998b, p 3) explains that using inert gases induces anoxia on the cellular level in carcass muscles, which can change the oxidation/reduction (radox) potentials and, thus, lead to increased shelf-life of meat due to a slow rate of development of off-odours and discoloration. The Canadian Food Inspection Agency (1999a) states that gassing is also reported to produce more tender breast meat than when electrical stunning is used. Taken together, this means that gas-killed birds produce better quality meat that lasts longer, in terms of smell and color, than electrically stunned birds.

**Savings From Reduced Internal and External Contamination**

According to the USDA (2002), **in a recent year, almost 5.5 million chickens were condemned for being contaminated**. **All three forms of potential contamination (described below) would be almost completely eliminated under the gas killing model**, during which birds are killed in their transport

containers rather than being dumped and, therefore, are not able to inhale in the stun bath or defecate in the scald tank.

§ **Reduced stun bath contamination:** During electrical stunning, chickens tend to defecate and inhale water during the initial spasm caused by being electrically shocked. Gregory and Whittington (1992) examined this by including a radioisotope in the stun bath and then looking at carcasses to determine whether or not internal radioactivity was detected. The results clearly showed that chickens can and do inhale water during electrical stunning in a waterbath and that [n]o remedy is available at the moment (p 362). The authors suggest that the respiratory tract can, thus, become contaminated with bacteria from the stun bath and leak onto the edible portions of the carcass during evisceration.

§ **Reduced scald tank contamination:** During electrical stunning, external contamination is also a concern because of the tendency that birds have to defecate in the scald tank while they are still alive, which is a common occurrence in U.S. slaughterhouses. Subsequent birds are then dipped into the contaminated water, necessitating excessive rinsing later down the line.

§ **Reduced microbial contamination from live dumping:** The dumping of live birds onto the conveyor during the electrical stunning process leads to scratches and wounds as they land on other birds or otherwise struggle. Raj (1998, p 3) speculates that the skin wounds incurred not only reduce the value of the carcass, but can become a potential site for microbial attachment.

**Savings From Other Sources**

In addition to the carcass- and meat-quality improvements mentioned above, there are additional financial benefits that can be achieved through gas killing, such as increased meat yield, reduced refrigeration, energy, and labor costs, improved worker conditions and safety, and environmental benefits.

§ **Reduced labor costs:** The labor cost of gas killing is substantially lower than the labor cost of electrical stunning. The elimination of live-bird handling reduces injuries and the resulting medical claims and, since the birds are killed in their crates, the labor costs relating to killing and shackling the birds are reduced. Additionally, the reduction in bruising and broken bones diminishes the significant need for carcass and fillet examination. Raj (1998) estimates that (adjusting for inflation from 1995 to 2002) **a typical U.S. slaughterhouse that processes 1.3 million broilers per week incurs more than $248,000 per year in labor costs associated with carcass handling.** Even beyond these savings, the less problematic shackling of dead birds, as opposed to live, struggling ones, will allow for more efficient labor and will reduce the number of workers needed to achieve the same rate of shackling.

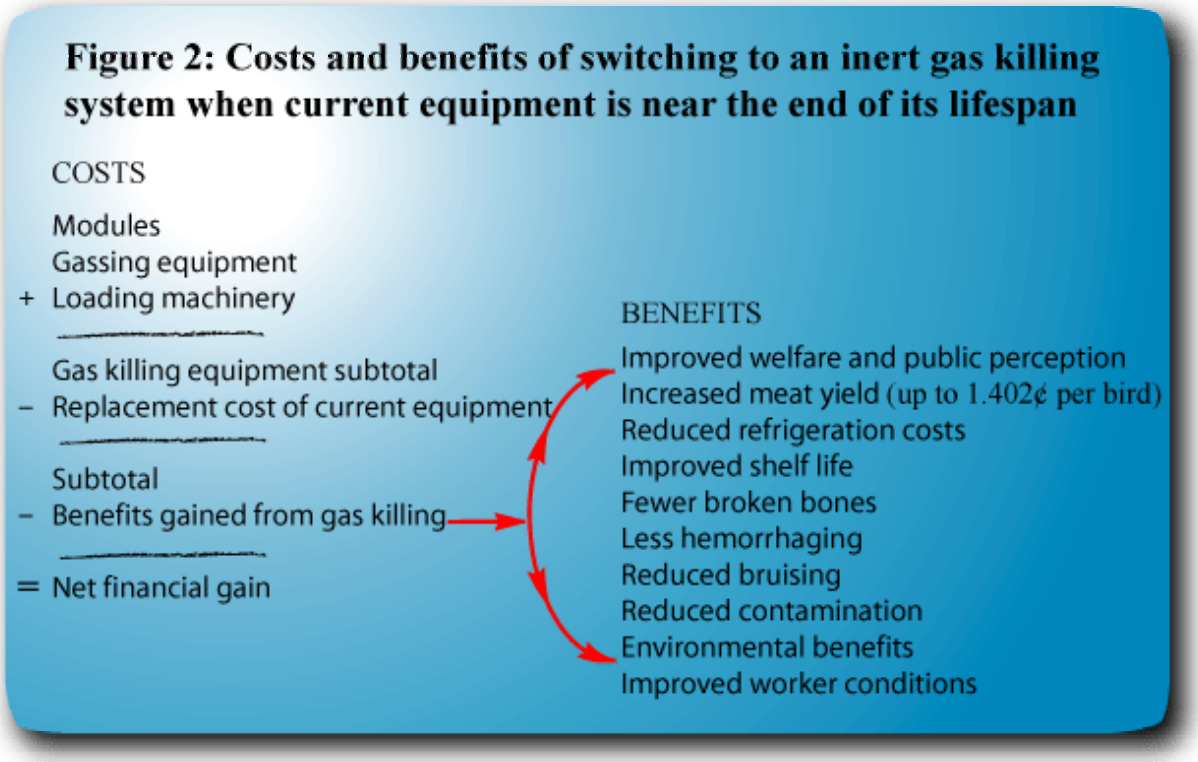
§ **Improved worker conditions and safety:** The Canadian Food Inspection Agency (CFIA 1999, p 1) concluded that [t]he environment for the [personnel] working in the poultry stunning area is also very much improved with the use of controlled atmosphere stunning. Dust is reduced since unconscious birds are placed on the evisceration line. Obviously, this will reduce worker attrition, sick and other leave, medical claims, and insurance costs to a significant degree.

§ **Environmental benefits:** The improved quality and yield of gas killing leads to a reduced by-product destined for disposal as waste, and [t]he increase in yield in turn leads to a tendency to store more of the slaughterhouse output in conditions which won t cause spillage or odour problems (EIPPCB 2003, p 287). While electrical stunning models typically require about 15 liters of water to rinse the carcass of each bird (Raj 2003), the gas killing model s reduced contamination means that less water is needed for rinsing carcasses an advantage that leads to less runoff and reduced water-treatment needs.

**Payback Period**

Considering the increased revenue created by improving meat quality and lowering operating costs through the switch to inert-gas killing, **the initial costs of switching to a gas killing system would be recouped quickly.** Costs will be offset in an even shorter time period for plants that are using electrical stunning equipment that must be replaced anyway. Based on the estimates above, a plant that installs a gas killing line at a cost of either $1.5 (without extra modules) or $1.85 million (with extra modules, to be used when the source of live birds is not located near the slaughter facility or when drawer systems are not already in place, as previously described), with a capacity to slaughter 896,000 birds per week or 46,720,000 annually, would have a yearly operating cost of as little as $233,600 and a yearly increase in revenue of $655,014 (46,720,000 * 1.402 cents) from increased meat yield. **The added revenue from increased meat yield alone would pay for the gas killing line in about 3.5 years if extra modules were not needed and about 4.5 years if extra modules were required**. Or, over KFC s entire annual U.S. production, assuming between $12 million and $14.8 in start-up costs, with yearly operating cost of as low as $1,755,000 (351 million * 0.5 cents), coupled with yearly savings of $4,921,020 (351 million * 1.402 cents) from increased meat yield, the payback period could be as little as approximately 3.5 years based on increased meat yield alone, or about 4.5 years if extra modules were required. Similarly, a payback period of as little as about 3.5 years could be achieved worldwide, based on increased meat yield alone (and considerably faster when other savings are considered), assuming $24 million in start-up costs without extra modules, yearly operating costs of as little as $3,680,000 (736 million * 0.5 cents), and yearly savings of $10,318,720 (736 million * 1.402 cents) in meat yield, or about 4.5 years if extra modules were needed.

Again, it must be emphasized that these payback periods have been estimated using increased meat yield alone, and when all the other benefits are factored in, producers using gas killing systems will begin to realize significant economic savings over electrical stunning systems well before the 3.5 to 4.5year mark. **In fact, Raj (2003) estimates that, taking sources of increased revenue discussed above into account, the initial costs of implementing a gas killing system could be recouped within a year.** Figure 2 summarizes the costs and benefits of switching to an inert-gas killing system in which birds are killed in transport containers prior to being shackled:



**Increased Future Profits**

Once payback has been achieved, increased revenue can be expected at a rate of $9,020 per million birds ($14,020 in increased meat yield revenue minus $5,000 for the cost of gas). Based on the 736 million chickens slaughtered by KFC last year, once the initial costs of the gas killing system are recovered, **gas killing would result in an additional $6,638,720 in profit annually** from improvements in meat yield alone when compared to an electrical stunning system, and these gains would continue for the life of the equipment. It is also important to note that when elements of the equipment have to be replaced, the subsequent costs will be significantly less than the initial purchase since certain components (e.g. modules) can have greater longevity than others . For easy reference, Figure 3 shows the basic breakdown of all the figures referred to within this document:

**Figure 3:** Summary of Key Costs and Benefits of Implementing Inert-Gas Killing Systems for KFC s Local, National, and International Operations

| **Start-up costs using American Autoflow estimates** | **Single plant** | **U.S.** | **International** |
|---|---|---|---|
| No. of chickens slaughtered per year | 46,720,000 | 351,000,000 | 736,000,000 |
| Cost per line (at 128K birds/day) without extra modules | $1,500,000 | $1,500,000 | $1,500,000 |
| Cost per line (at 128K birds/day) with extra modules | $1,850,000 | $1,850,000 | $1,850,000 |
| No. of lines needed (at 128K birds/day per line) | 1 | 8 | 16 |
| Start-up costs without extra modules | $1,500,000 | $12,000,000 | $24,000,000 |
| Start-up costs with extra modules | $1,850,000 | $14,800,000 | $29,600,000 |

| **Start-up costs using EIPPCB (2003) and Raj (1998) estimates** | **Single plant** | **U.S.** | **International** |
|---|---|---|---|
| No. of chickens slaughtered per year | 51,100,000 | 351,000,000 | 736,000,000 |
| Cost per line (at 70K birds/day) | $1,300,000 | $1,300,000 | $1,300,000 |
| No. of lines needed (at 70K birds/day per line) | 2 | 14 | 29 |
| Start-up costs | $2,600,000 | $18,200,000 | $37,700,000 |

| **Operating costs** | **Single plant** | **U.S.** | **International** |
|---|---|---|---|
| No. of chickens slaughtered per year | 46,720,000 | 351,000,000 | 736,000,000 |
| Minimum cost of gas per chicken | $0.005 | $0.005 | $0.005 |
| Annual operating costs | $233,600 | $1,755,000 | $3,680,000 |
| 3.5-year minimum operating costs | $817,600 | $6,142,500 | $12,880,000 |
| 4.5-year minimum operating costs | $1,051,200 | $7,897,500 | $16,560,000 |

| **Increased meat yield revenue** | **Single plant** | **U.S.** | **International** |
|---|---|---|---|
| No. of chickens slaughtered per year | 46,720,000 | 351,000,000 | 736,000,000 |
| Increased meat yield revenue per bird | $0.01402 | $0.01402 | $0.01402 |
| Annual increase in revenue from meat yield | $655,014 | $4,921,020 | $10,318,720 |
| 3.5-year revenues from increased meat yield | $2,292,550 | $17,223,570 | $36,115,520 |
| 4.5-year revenues from increased meat yield | $2,947,565 | $22,144,590 | $46,434,240 |

| **Annual increased meat yield revenue after payback** | **Single plant** | **U.S.** | **International** |
|---|---|---|---|
| Annual increase in revenue from meat yield | $655,014 | $4,921,020 | $10,318,720 |
| Annual minimum operating costs | $233,600 | $1,755,000 | $3,680,000 |
| Net annual revenue from increased meat yield after payback | $421,414 | $3,166,020 | $6,638,720 |

| **Payback period based on increased meat yield** | **Single plant** | **U.S.** | **International** |
|---|---|---|---|
| Total 3.5-year costs based on start-up costs without extra modules | $2,317,600 | $18,142,500 | $36,880,000 |
| Total 3.5-year benefits from increased meat yield | $2,292,550 | $17,223,570 | $36,115,520 |
| Total 4.5-year costs based on start-up costs with extra modules | $2,901,200 | $22,697,500 | $46,160,000 |
| Total 4.5-year benefits from increased meat yield | $2,947,565 | $22,144,590 | $46,434,240 |

**II. Mechanical Catching**

The use of machines during the catching process also results in financial savings for the producer. Elrom (2000) concludes that [m]any works in the professional literature indicate that the use of a mechanic combine, which was developed for this purpose, is preferable to manual handling on economic and welfare considerations. It seems that the mechanical combine decreases the DOA [dead-on-arrival] values, improves the welfare of the birds and decreases bruising, bone fractures and skin torsion.

Knierim and Gocke (2003) also found that [c] atching machines are advantageous with regard to labour costs and standards. Thornton (1994) found that mechanical catching could result in savings of at least 60 percent on labor when compared to manual catching. Lacy and Czarick (1998) estimated that, when compared to a typical nine-person catching crew, mechanical catching would save at least $143,000 per year in labor costs. Furthermore, they conclude that assuming a cost of $175,000 for a mechanical harvester, **the reduction in labor cost alone would pay for a harvester in less than 15 months. This payback estimate does not include additional savings likely in reduced bruising to birds, reduced workman s compensation claims, or reduced worker health care costs.** Another recently published article (Bellett 2003) estimated the cost of one popular model at $200,000. If we use this price range (between $175,000 and $200,000) and subtract the yearly labor savings estimated by Lacy and Czarick, we find that **after two years, producers would actually have saved between $86,000 and $111,000 per machine** by switching to mechanical catching.

It has been reported that one of KFC s suppliers, Purdue Farms, Inc., employs approximately 150 human chicken catchers (Meat Industry Internet News Service 2000) with between seven and 10 catchers in a typical crew (Lacy and Czarick 1998) and slaughters about 586,040,000 birds annually (WATT PoultryUSA 2003). This means that between 15 and 21 crews are employed to catch all of Perdue s chickens, giving an average annual catching rate of between 27,906,667 and 39,069,333 birds per crew. If we very conservatively apply the low end of this range to KFC s production rates, we find that it would need approximately 13 crews to catch all the birds slaughtered for U.S. consumption and 27 crews worldwide.

It has been found that machines can catch at approximately the same rate as manual catching crews (Associated Press 2003, Lacy and Czarick 1998) but do not tire or slow down at the end of the shift like their human counterparts. Based on this, KFC would need approximately 13 catching machines in the U.S. and 27 machines internationally. For the latter, the initial cost would be approximately $4,725,000 (at $175,000 per machine), which would result, exclusively on the basis of labor costs, in a **net savings, by the end of the second year, of about $3 million and an annual savings, beyond the second year, of about $3.86 million based solely on labor savings.**

Ian Taylor (2003) of American Autoflow, Inc., provided another estimate and stated that, if used during two shifts daily, a single machine can catch about 2 million birds per month. Using this, we find that 31 machines would be needed to serve KFC s producers worldwide, resulting in an initial cost of $5,425,000 (at $175,000 per machine), which would, again, result in **great savings, based on labor costs alone, of about $3.441 million by the end of the second year, and about $4.433 million annually thereafter**. The actual savings would certainly be much higher once all the advantages were included. The producer community has already caught on to this: Top companies such as Perdue Farms, Inc., and Tyson Foods, Inc., are already using catching machines at some of their facilities. It is crucial, however, that only the best machines are used and that they are carefully monitored.

**III. Animal Care Standards (ACS)**

The ACS standards were developed by KFC s own poultry experts and represent the absolute least that KFC can do to eliminate the worst abuse and neglect of chickens. It is difficult to estimate the cost that KFC s suppliers would incur by adopting the ACS, as PETA does not know the precise degree to which each of KFC s suppliers is presently out of compliance. However, it is important to note that adopting the ACS for chickens requires **no major fixed costs** since the program requires, largely or exclusively, simple changes in practices, upkeep, and training and does not require new housing structures or

equipment. These costs should not prove to be overly burdensome, and the increased revenue stemming from the adoption of gas killing and mechanized gathering (as detailed above) will more than make up for them.

Furthermore, consider the potential economic impact that becoming the first large company to adopt these standards would have for KFC. Not only would PETA s campaign against KFC end, which would return customers to KFC and save the company considerable public relations costs, but KFC could cultivate the image of a company that sincerely cares about animal welfare and is willing to adopt groundbreaking new guidelines to ensure that animals raised for its restaurants are not grossly abused. A recent poll showed that 62 percent of Americans favor strict laws to protect farmed animals from abuse, so clearly, KFC could reach a large potential customer base with this image.

**Conclusion**

The analyses above show that every slaughter plant that adopts a gas killing method and each farm that utilizes mechanized gathering in place of the current manual-gathering methods will accrue substantial savings. When these savings are applied to all of KFC s international suppliers for their 736 million chickens, the savings would be well into the tens of millions of dollars after only a short period of time. The savings are so substantial that the technology can reasonably be expected to pay for itself within a year, and the savings will continue to accrue in perpetuity. The ACS standards are also very likely to pay for themselves through improved worker satisfaction and carcass quality and an increased customer base. Even the basic costs associated with the ACS would be more than offset by the increased revenue from gas killing and mechanized gathering. Taken as a whole, PETA s recommendations make sense from an economic standpoint. KFC should not be intimidated by the initial investment because, like any good investment, it will earn back its initial costs and result in continued profits for years to come.

The strongest argument for improving animal welfare is the moral one. Chickens, like all animals, deserve to be protected from the worst abuses that they suffer on factory farms. KFC s public claims to be addressing these abuses show that the company recognizes the validity of this argument. However, improving animal welfare makes sense objectively as well. Adopting gas killing, mechanized gathering, and the ACS is a win-win situation: KFC has the opportunity to take the moral high road and profit from it as well.

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