

# From Backyard to Factory Farm: Chicken Production and Consumption in Paraná, Brazil (1960-1980)

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## ABSTRACT

Based on a survey of more than 1,500 articles of an influential newspaper of Paraná, “*Diário do Paraná*”, this article presents an investigation into the history of production and consumption of chicken in the state of Paraná, Brazil, discussing its consequences on the environment and the welfare/rights of these animals. This is an epicenter for the history of the chicken in Brazil and worldwide. The focus of the analysis is the period 1960-1980, paying attention to the political and economic context, in order to give sense of the evolving landscape of the rural environment, the scientific or technical inputs and recommendations, the institutional arrangements and politics, as well as the government agencies involved. In the process, it was analyzed the changes that came out of that period in terms of chicken production and consumption and correlated to more broad transformations of the agricultural development of Brazil during the military governments and its fast urbanization process. During this time, many central features of the contemporary chicken industry became established, and a pattern of chicken consumption took off, even though the welfare of the chicken was rarely mentioned in the newspaper discussions.

**Keywords:** poultry production; chicken consumption; chicken welfare; environmental history of Paraná.

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In the last presidential campaign in Brazil, Lula promised that the Brazilian people would turn back to eat again rump steak accompanied by beer. This was largely exploited in the political debates of the day.<sup>2</sup> Probably what he was trying to say, one could argue, is that he was confident that the economic condition of the poor would improve again. Implicit in that comment is the persistent and popular idea that improving life means eating more meat, and specifically, bovine meat, even though Brazilians on average since the beginning of the 21st century have been eating more chicken than beef, and more meat in general (bovine, swine, and chicken) than Europeans or folk from other developed nations like Japan or South Korea. Back in 1972, General Emílio Médici, president of Brazil under a military dictatorship, said that “we need to educate the Brazilian people so that they consume more poultry meat. While an ox takes three years to reach slaughter age, a chicken is ready for market in 60 days”<sup>3</sup>. What can be seen from these speeches is that eating meat has been an important part of the political discourse, and for a variety of reasons that deserve explanations about the expectations, concerns or ideas that revolve around that food and agricultural practice, and that is not completely clear when we consider those words isolated.

The production and consumption of meat, and chicken meat in particular, has recently received a growing attention in the academic literature, considering the enormous implications of its environmental and animal welfare/rights dimensions, but also considering the grand transformations of food habits worldwide, that is more dramatic in developing nations like Brazil if we look at the speed of these changes<sup>4</sup>. If we want to tackle the enormous challenges related to climate change, loss of tropical forests and consumption of water, we need to consider the growing world demand for meat that pushes international food suppliers like Brazil and Paraná in particular to increased pressures towards its natural resources and animal populations.

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<sup>2</sup> Nathalia Garcia, “Picanha e Cerveja são 'Versão Colorida' do Passado, diz Guedes sobre Fala de Lula,” *Folha de São Paulo*, October 19, 2022, <https://www1.folha.uol.com.br/mercado/2022/10/guedes-segue-bolsonaro-e-contesta-discurso-de-lula-sobre-picanha-e-serveja.shtml>.

<sup>3</sup> “Avicultor diz que está em crise,” *Diário do Paraná*, April 4, 1973, <http://memoria.bn.br/DocReader/761672/91651>.

<sup>4</sup> Vaclav Smil, *Should We Eat Meat? Evolution and Consequences of Modern Carnivory* (Chichester, UK: Wiley-Blackwell, 2013).

Considering the importance of these debates for the present and for the future of food, the aim of this article is to present the environmental and animal history of chicken production and consumption in the state of Paraná, Brazil, between 1960 and 1980. The state of Paraná, in southern Brazil, is currently the leader exporter and producer in the country, and Brazil since 2010 is the biggest exporter of chicken worldwide<sup>5</sup>. This means that this is an epicenter of chicken production worldwide, especially the western section of the state. Yet many of the same issues connected to the history of chicken production and consumption in the United States and other places are present there too<sup>6</sup>.

The ascension of Paraná to a prominent place in chicken production could be traced more narrowly to the developments of the last 30 or 40 years. But we must understand the previous decades to consider where the key elements of this transformation come from. Therein, the objective of the present analysis is to focus on a previous phase of agricultural and food consumption, where all the recent developments take off, or were in the beginning. The economy of Brazil was until the 1960s little industrialized, very much depended on coffee exports, and a net importer of food<sup>7</sup>. In Paraná in particular, the situation was very much similar, with most of the population still living in the countryside, with little adoption of the modern technology associated with the Green Revolution such as tractors and other machinery, synthetic fertilizers, limestone powder, science based seeds and pesticides. But by then important government policies designed to provide massive rural credit, extension service, agricultural research and large investments in transport and energy infrastructure were about to transform the face of agricultural and chicken production and consumption. For the agricultural sector in general, it is known that the Green Revolution was implicated with massive rural exodus associated with decreased price for agricultural products and environmental impacts caused by the use of modern

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<sup>5</sup> Herbert Klein and Francisco Vidal Luna, "The emergence of Brazil as the Leading World Exporter of Chicken Meat," *HAAL Historia Agraria de América Latina* 3, no. 2 (2022): 75-99, <https://doi.org/10.53077/haal.v3i02.127>.

<sup>6</sup> Emelyn Rude, *Tastes like Chicken: A History of America's Favorite Bird* (New York: Pegasus Books, 2016); Paul R. Josephson, *Chicken: A History from Farmyard to Factory* (Cambridge, UK: Polity Press, 2020).

<sup>7</sup> José Eustáquio Ribeiro Vieira Filho, "Transformação histórica e padrões tecnológicos da agricultura brasileira", in *O mundo rural no Brasil do século 21: a formação de um novo padrão agrário e agrícola*, edited by Antônio Márcio Buainain, et al. (Brasília, DF: Embrapa, 2014).

technology, much more depended on fossil fuels and capable of expanding more agricultural frontier on native biomes.

The article structure is organized in 7 sections. Part 1: introduction; Part 2: methodology, where it is made some considerations about newspaper-based research; Part 3: the transition of chicken production from the time of small backyard production until the beginning of exports, to Arab countries; Part 4: chicken welfare/rights; Part 5: chicken consumption in the political and economic context of the period 1960-80; Part 6: conclusions; Part 7: references.

## METHODOLOGY

The methodology to study chicken production and consumption in Paraná between 1960 and 1980 is centered in the analysis of newspaper articles, from the “*Diário do Paraná*” (Paraná Diary). This newspaper was part of the media conglomerated controlled by journalist and entrepreneur Assis Chateaubriand. In analyzing the reports from the newspaper, it has taken into consideration the ideas from José D’ Assunção Barros about methodological issues of newspaper-based research<sup>8</sup>. Barros emphasizes the need to address interactions between the producers and the receptors of the newspaper, as well as his social range and other aspects.

Published in the state capital, Curitiba, and circulating through the interior of the state, *Diário do Paraná* (hereafter, DP) was one of the most important newspapers in the state by that time. It was a time when electricity was still very limited provided in the countryside of Paraná, where in 1960, 69% lived, but dropped rapidly to 41% in 1980. Connected to this, penetration of the television was still very limited in the state, so radio and newspapers were certainly more important and influential as media communication than nowadays. This last observation is especially important to keep in mind to understand the relevance of the methodology used in this research.

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<sup>8</sup> José D’Assunção Barros, *Fontes históricas: introdução aos seus usos historiográficos* (Petrópolis, RJ: Vozes, 2019), 179-252.

The newspaper was more influential in Curitiba, a fast-growing city of the time, as can be seen through the article's contents. But there was considerable space for articles discussing issues, agriculture or not, about other cities and regions of the state. Even considering that a vast percentage of the rural population was illiterate, there was a section for many years in the newspaper called Paraná Agricultural (*Paraná Agrícola*), signed by Arno Voigt. Considering these realities and the content of some of the reports selected for the analysis, more economic or agronomical in its character, presumably it was mainly addressed to agronomists, veterinarians, technical agents of the extension service or members of the state agricultural secretariat, and maybe a few more economically well positioned agricultural and politician folk of the state. Needless to say, these influential people shaped the agricultural ideas and practices of the state to a considerable extent.

The newspaper was consulted online on the website of the National Library of Brazil over a period of 4 months.<sup>9</sup> It were analyzed 1,555 pages or occurrences of the DP between the beginning of 1960 and the end of 1980. The keyword chosen on the website as filter was "*frango*" (chicken, in Portuguese). Every occurrence or newspaper page of the DP where *frango* was located on the website was read and analyzed in its content. 217 occurrences were selected as more relevant to the analysis, and based on that selection, subthemes and sections for this article were constructed.

The newspaper, as Barros emphasizes using a musical metaphor, is a polyphonic document, that means, it comports a variety of different voices, sometimes even contradictory ones in his interior. Another useful idea of Barros about newspapers and that was considered in this research is the report positionality in the publication, and the possible interaction with other reports. But it is also important to make clear that the research is not about the DP *per se*, and rather what can be gleaned of the chicken production and consumption in Paraná in that time. Still one more important methodological caveat here is that not always it was possible to identify if the opinion or information brought by the article author was something representative of the times

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<sup>9</sup> Hemeroteca Digital da Biblioteca Nacional, accessed January 22, 2024, <https://bndigital.bn.gov.br/hemeroteca-digital/>.

or a more idiosyncratic view. In this last case, the scope of the present analysis is to interpret the newspaper articles, considering also what the secondary literature can help with the contextual information.

### **“TRULY POULTRY FACTORIES”: FROM THE BACKYARD TO THE ARABS**

According to FAO data about chicken consumption in Brazil, the average in 1961 was about 1.72 kg per capita per year, which means that one or two of these animals were killed per person year. There was no chicken export by that time. This is a huge contrast with the recent period, when Brazil is the largest chicken exporter in the world, and the domestic consumption is about 48 kg per person year<sup>10</sup>. As can be inferred from this, the beginning of the 1960s was the infancy time of the whole process of making chicken an industrial business as opposed to a backyard, artisanal or supplementary job. There are several signs founded in DP that evidence this infancy in the industry. For example, one article of a Sunday edition from February 1969 in a more or less nostalgic tone, presented what was the old days, or “some years ago” in Curitiba:

The firewood to fuel the delicious stoves that helped heat our homes in the harsh Curitiba winter also came to us brought by Italian or Polish carts, the same ones that washed our bed and table linen. Chickens and eggs, for those who didn't have their own backyard in the city, still without apartment buildings, came from the same source, the colonies on the outskirts of the city. Life went on serenely and peacefully. No one found anything difficult, even though they had to provide the chicken for the improved Sunday lunch on Friday. [...] A few years ago - we said above - we had to think seriously, on Thursday, about the dish that would be the “*pièce de resistance*” for Sunday lunch, and without fail buy our chicken, or steak, or roast beef, or fish, on Friday; Today, on a Sunday morning, the housewife can buy chickens that are simply killed and cleaned, or already roasted...<sup>11</sup>

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<sup>10</sup> Food and Agriculture Organization of the United Nations – processed by Our World in Data, “Per capita meat consumption by type, Brazil, 1961 to 2020,” accessed January 22, 2024, <https://ourworldindata.org/grapher/per-capita-meat-consumption-by-type-kilograms-per-year?country=-BRA>.

<sup>11</sup> Rosy, “A Nossa Comida de Cada Dia,” *Diário do Paraná*, February 23, 1969, <http://memoria.bn.br/DocReader/761672/71085>.

The article deals with this transition of the backyard production of chickens to the supermarket, where the chicken meat could be found ready for consumption, and the task of killing and cleaning a hen was still part of lives of many people, including also urbanites. Even in Curitiba, the capital city of the state, in 1960 with a population of 361,000, the old days of chicken production and consumption were around the corner. Chicken, as opposed to more recent years, were viewed as food for the Sundays, that is, not an everyday kind of food, and this explains the data of consumption of FAO in Brazil. Probably in the interior regions of the state in the beginning of the 1960s that was still the reality predominant for most of the population<sup>12</sup>. Chicken was a rare kind of meat consumed and mostly were killed and sold out of backyard raising systems by women, a task considered light enough to be performed by them, as it was also the case in the United States some decades earlier<sup>13</sup>.

Another article from DP in October 1961 presents a similar scenario, where in Paraná the chicken meat found ready for selling and consumption was part of a package of changes in the “modern woman's kitchen”:

I love walking through stores and admiring the new things being invented for the modern woman's kitchen. Just a few years ago, the kitchen was a place where you could only wear an apron from top to bottom and your hands were the living document of the housewife who made the food. Now wood and coal stoves have moved away from cities. The beautiful gas stoves, including a barbecue and grill, adorn the kitchen, where the housewife will happily cook food. [...] As for the foods themselves, more and more we come to the American housewife. Chickens are bought roasted or cleaned, so no one stops eating chickens because they don't know how to kill or clean them<sup>14</sup>.

For the reader from the 21<sup>st</sup> century, discussions of gender roles apart, the article calls the attention for a practice that was certainly still common in the countryside of Paraná, where most of the state population lived, that was killing and cleaning their own

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<sup>12</sup> Antonio de P. Bosi, “História das relações de trabalho na cadeia produtiva avícola no Brasil (1970-2010)”, *Revista de História Regional* 16, no.2 (2011): 400-430, 10.5212.

<sup>13</sup> Rude, *Tastes like Chicken*.

<sup>14</sup> “Nós e a Cozinha,” *Diário do Paraná*, October 4, 1961, <http://memoria.bn.br/DocReader/761672/38683>.

chicken meat. This is an infancy sign of the modern industrial chicken production. It can also be helpful to understand that context to say that a hen, unless spent, for the rural folk had more value alive, as source of eggs, than dead.

Among the articles in DP in the 1960s the researcher can find not only the memories and considerations about the past, but also the signs that point to what would be the future of the chicken industry. In an article titled “Spectacular progress of poultry farming”, from November of 1967, it was informed that one of the most renowned US economists, John W. Sharp (University of Ohio) visited Brazil in 1963 and said that the “Brazilian broiler farming is at the beginning of a development perhaps as violent as that experienced by the broiler industry in Georgia”<sup>15</sup>. Georgia, besides the Delmarva peninsula and Arkansas was one of the pivotal regions for the chicken industry in the United States<sup>16</sup>. In the same article it is found that this development was not merely spontaneous, but it was promoted by the old National Committee on Poultry Farming with the collaboration of US specialists to improve technics in raising animals as well as in slaughterhouses.

In an article from December 1967, signed by Luiz Octavio Pires Leal, he summarizes the broad transformations of the industry. We could find from other sources that Pires Leal was a veterinary graduated in 1958 from the old National School of Veterinary (Rural University of Brazil) and in 1961 had done a course in the Department of Poultry Science at the University of Texas<sup>17</sup>. So, it seems he was a very well positioned and educated man to make the following conclusions:

It cannot be denied that poultry farming in our country, whether to produce eggs or chicken meat, is becoming a true industry. “Caipira” production practically no longer has any economic importance, as the mentality of raising chicken on “weekends” is also at an end. [...] Large foreign organizations – producers of chicks, medicines and vaccines, feed and equipment manufacturers, have already seen our potential in poultry farming. They have already seen it and have come to take over the place left by our company men

<sup>15</sup> “Progresso Espetacular da Avicultura,” *Diário do Paraná*, November 5, 1967, <http://memoria.bn.br/DocReader/761672/64966>.

<sup>16</sup> Rude, *Tastes like Chicken*.

<sup>17</sup> Marcelo Sá, “Luiz Octavio Pires Leal, membro da Academia Brasileira de Medicina Veterinária,” Accessed January 23, 2024, <https://www.sna.agr.br/luiz-octavio-pires-leal-membro-da-academia-brasileira-de-medicina-veterinaria/>; “Livro destaca a trajetória do centenário médico-veterinário Milton Thiago de Mello,” Accessed January 23, 2024, [https://www.crmvsc.gov.br/pesquisa\\_abre.aspx?ID=7661](https://www.crmvsc.gov.br/pesquisa_abre.aspx?ID=7661).

who, it seems, have not yet discovered the ever-growing field of egg and poultry meat production<sup>18</sup>.

In this brave new world of chicken production, the author asserted there was no more economic importance to “*caipira*” production, that is in Portuguese, the small flocks that were still singing and running freely around the farmer houses of the countryside of Paraná. Leal was very aware of the times and was clearly predicting the future. As it happened also with the swine industry, only the bigger producers, capable of large investments, would survive economically in the future, in a process of “Darwinian” selection of the fittest, that is, the ones capable to survive with very tight profit margins and increased costs and debts. As this process evolved over the decades, it reached a point where in 2012, according to Espíndola, an air-conditioned poultry house, capable of housing between 25 and 100 thousand chickens, costed around 40 thousand dollars<sup>19</sup>.

The chicken industry central issue in terms of environmental impacts and economic significance was the feed used in this grand scale metabolism that wasted most of the protein and overall energy content of grains to transform into meat. Encapsulated by this protein and energy waste were the enormous areas, ecosystems loss and fossil energy involved in this process<sup>20</sup>. Corn and soybeans were the main ingredients of the feeds, added with micronutrients necessary to avoid deficiencies. Considering that the feeds represented around 70-80% of the economic costs to the poultry farmer and the volatility and growing internationalization of grain market prices in that period, there was always a tension between the economic sectors of crop and animal production, even more exacerbated if one bear in mind that Brazil until recently was a big importer of corn<sup>21</sup>.

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<sup>18</sup> Luiz Octavio Pires Leal, “Transformação Total na Avicultura Brasileira,” *Diário do Paraná*, December 24, 1967, <http://memoria.bn.br/DocReader/761672/65690>.

<sup>19</sup> Considering an exchange value of 1 US dollar for 2 reais, it is around 80,000. reais Carlos José Espíndola, “Trajetórias do progresso técnico na cadeia produtiva de carne de frango do Brasil,” *Geosul* 27, no. 53 (2012):108, <https://doi.org/10.5007/2177-5230.2012v27n53p89>.

<sup>20</sup> Nicholas Bowles, Samuel Alexander, and Michalis Hadjikakou, “The livestock sector and planetary boundaries: A ‘limits to growth’ perspective with dietary implications,” *Ecological Economics* 160 (2019): 128–136, <https://doi.org/10.1016/j.ecolecon.2019.01.033>.

<sup>21</sup> Herbert Klein and Francisco Vidal Luna, “The Impact of the Rise of Modern Maize Production in Brazil and Argentina,” *Historia Agraria* 86 (2022): 1-38, [10.26882/histagrar.086e09k](https://doi.org/10.26882/histagrar.086e09k).

As is generally recognized, the Brazilian state (federal and state level) had a central role in the agricultural production modernization process, and specifically in the feed and chicken industry sectors we can see the importance and entanglements of government mechanisms to incentivize chicken production and consumption. The new military government came to power in 1964 under a coup d'état not merely intending to overcome a perceived communist threat in the country but also willing to redesign several institutions in the country, including in the key food sector. Thus, in 19 months after the “revolution”, as the military called it, law n. 4.829/65 was sanctioned, launching a massive rural credit. This was the key element for the enormous expansion of corn and soybean production, that added to the already previous policies of government incentives to wheat production. In 1973, another central government incentive to the agricultural sector, including chicken, was the creation of Embrapa, the Brazilian Agricultural Research Corporation, that adapted the Green Revolution technologies to tropical conditions and improved agricultural productivity in general.

In respect of the feed industry, for many decades wheat and soy production in Brazil and Paraná in particular were connected, since the economic subsidies for wheat were used to produce soy in the 1950s and the rotation soy-wheat were still very much part of a normal agricultural practice in Paraná in the 1960s and 1970s<sup>22</sup>. The feed industry also has a story connected to the incentives to wheat. An article in DP from 1972, shows this and other government incentives, and how the feed industry was recently passing to a process of professionalization<sup>23</sup>. The beginning of the feed industry in Brazil was connected to wheat mills, the article tells, because the white flour was generally sold and consumed, and some parts of the grain (wheat bran) would be simply wasted, unless used to feed animals. The same article also makes clear how the

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<sup>22</sup> Margarida Cassia Campos, “Modernização da Agricultura, Expansão da Soja no Brasil e as Transformações Socioespaciais no Paraná,” *Revista Geografar* 6, no.1 (2011):161-191, <http://dx.doi.org/10.5380/geografar.v6i1.21808>; Jó Klanovicz, “Between Brazil and Paraguay: an Envirotech History of Global Soyfarming,” in *The Age of the Soybean: An Environmental History of Soy During the Great Acceleration* edited by Claiton Marcio da Silva and Claudio de Majo (Winwick, UK: White Horse Press, 2022), 247-264.

<sup>23</sup> “Rações: Qualidade é a meta,” *Diário do Paraná*, April 23, 1972, <http://memoria.bn.br/DocReader/761672/86728>.

government incentives to crop production were equally an economic incentive to the feed industry and the poultry sector:

It is worth remembering that the government has made it as easy as possible to grant financing for the purchase of feed, classified as a modern input. This credit facility for poultry farming, in particular, and agriculture, in general, effectively brought relief to rural exploitation. Benefiting our poultry farming, the government also favors the consolidation and expansion of the feed industry. It is worth noting that 80% of the factories' production is absorbed by the poultry sector.<sup>24</sup>

Reflecting about the feeds, we could argue that they represent something similar to the synthetic fertilizers in crop production, because they were the input that speed up the production process of the target organism, in this case the chicken animal. A better feed combined with a genetic improvement was essential to shorten the production time, from the average of 63 days in 1965 to 49 in 1985.<sup>25</sup>

In Paraná, the transformation of the chicken industry was somehow more slowly than in other states like Santa Catarina, with Attilio Fontana and his Sadia company, or São Paulo and Rio de Janeiro, that in principle had easier access to bigger urban markets for eggs and chicken meats. In the state of Paraná, contrary to the last 20 years, cooperatives dedicated to this market were not meaningful in the economic landscape<sup>26</sup>. But the technological developments and economic turbulences of the sector were frequently noticed in DP. An article from April 1975, in the section “opinion” titled “chicken war” showed that a few months previous to the entry of Brazil into the export market, many states were competing fiercely for chicken markets inside the country and practicing dumping, to hurt the competitors. Paraná was presented in the article as not one of the players, because “as far as we know, we still lack greater expression in terms of poultry farming.”<sup>27</sup> Nevertheless, contradicting this statement,

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<sup>24</sup> “Rações.”

<sup>25</sup> Espíndola, “Trajetórias do progresso técnico,” 92.

<sup>26</sup> Diane Belusso, “A Integração de Agricultores às Cooperativas Agrícolas Abatedoras de Frangos no Oeste do Paraná,” Doctoral Dissertation in Geography (Universidade Estadual Paulista “Júlio de Mesquita Filho”, campus de Presidente Prudente, 2010).

<sup>27</sup> “Guerra do Frango,” *Diário do Paraná*, April 30, 1975, <http://memoria.bn.br/DocReader/761672/103907>.

and in a more positive view of the poultry sector in the state, in August 1973, in the section “Our opinion”, the newspaper presented an optimistic panorama of the state conditions, and how the future prospect of chicken export would be a good thing for Paraná:

Now, it is precisely because Paraná already has a strong presence in the poultry farming sector, and is the largest producer of corn, the basic ingredient in poultry feed, that we consider the aforementioned perspective of Brazil entering the field of exporting slaughtered chickens in the near future, which we consider the news in question to be highly important for our regional interests. We can, in fact, come to figure prominently in this new economic field, especially because our corn production is already being largely consumed regionally in the preparation of feed by our poultry farmers.<sup>28</sup>

That is, although Paraná was still not a main player in this market, DP was right to point that the future would change this reality, considering the preconditions necessary for chicken production. One frequent bottleneck problem was the corn production, and Paraná was a leading producer.

Considering this background, it is not surprising that the announcement of the beginning of the chicken export by Brazil was very much publicized in DP. In an article occupying an entire page of the newspaper, and signed by Lauriston von Schmidt, founder of the Brazilian Poultry Union, he presented many details of the poultry sector conditions, and the first shipment of 600 tons to Kuwait in July 1975<sup>29</sup>. Paraná was not even mentioned in the article, but certainly the consequences for the state were clear or implicit enough for the politicians, technical and producers themselves. This was a decisive step in a process that brought powerful incentives to the poultry sector in the state to produce even more, either by expanding the sales in the internal market and now export. What was a time of celebration for the sector leaders, the result of technical progress and entrepreneur cleverness, can also be presented as massive scale

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<sup>28</sup> “Nossa Opinião: Avicultura,” *Diário do Paraná*, August 21, 1973, <http://memoria.bn.br/DocReader/761672/93814>.

<sup>29</sup> Lauriston von Schmidt, “Avicultura brasileira sofreu uma revolução,” *Diário do Paraná*, October 2, 1975, <http://memoria.bn.br/DocReader/761672/106299>.

violence against these sensitive creatures. In the next section, we present some of the relevant issues discussed in DP related to this topic.

### **THE (ALMOST) INVISIBLE WELFARE/RIGHTS OF CHICKENS**

As the animal welfare scientist Donald Broom stated, “animals have always had welfare but what humans know of it has become modified over time, especially recently”<sup>30</sup>. In the West, since the time of Classical Antiquity philosophers and scientists have been debating the nature of animal souls, their capacities for pleasure, pain, intelligence or even reason. Although we can also remember a few influential voices that denied animals the capacity for suffering or pleasure, like Descartes, even though admired in other aspects of his philosophy was not regarded correct in respect to his animal ideas by most of his contemporaries<sup>31</sup>.

From this reflection we can ponder that, nevertheless DP very little discussed the welfare of chickens in Paraná, through the many articles dedicated to poultry production, it does not mean that the welfare of chickens does not exist, or that it was not relevant enough to be more extensively presented in the newspaper. Maybe it was something that everybody knows but preferred most of the time not debate for some reason in a social space like a newspaper, whether because it was considered inevitable as a standard practice of the industry and the food system as a whole or because people could simply consider it a non-relevant issue, expressing a behavior which philosopher Peter Singer would call “speciesism”. Put simply, the term speciesism, the prejudice against other species, as analogous to the prejudice against other races (racism) or the other sex (sexism), means not to give appropriate consideration to the interests of animals just because they are animals, and not humans<sup>32</sup>.

There are some articles in DP where the welfare of chickens can be inferred by researchers, but it was not explicit or intentionally made patent to the reader. It is

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<sup>30</sup> Donald M. Broom, “A History of Animal Welfare Science,” *Acta Biotheoretica* 59 (2011), 122, 10.1007/s10441-011-9123-3.

<sup>31</sup> Rod Preece, *Brute Souls, Happy Beasts, and Evolution: the historical status of animals* (Vancouver: UBC Press, 2005).

<sup>32</sup> Peter Singer, *Animal Liberation Now: the definitive classic renewed* (New York: Harper Perennial, 2023).

either by the common sense or in the scientific level very well known that the chicken is a social animal, that means, she prefers naturally to live in a flock or group of males and females alike. Scientists know that each chicken in a flock recognizes each other and knows what the other is capable to have food or a sexual mate. Some, when entering a new flock, will engage in fighting in order to display strength and establish priority over food. Usually, these fights are not severe and soon each chicken will know where her particular place in the social hierarchy of the group is, not needing additional conflicts<sup>33</sup>. But in the context of the industrial model of chicken production, with thousands of birds in a single shed, with very limited space for each animal, it becomes hard or impossible to establish the characteristic behavior of the flock hierarchy. This means the birds start to beak each other much more frequently, to a point of hurting each other severely.

Thence, a standard practice of the industry to deal with this is debeaking the birds, and this has already been discussed in DP in 1966. In an article under the title “Massive debeaking”, there was comments about this practice, but not a single word for the pain involved in the process<sup>34</sup>. As pointed by Joseph Barber *et al*, “because the sensitivity of the beak is so important for feeding, nest building, grooming, and social interaction, care must be taken when tipping or trimming as this can affect chickens’ abilities to use their touch-based sensory systems”.<sup>35</sup> It is today recognized by scientists that the practice is painful for the animal<sup>36</sup>. In the article of DP, it is commented that the practice could lead even to the death of the animal, if the poultry farmer were not able “to make the chicks immediately eating and drinking”<sup>37</sup>.

In a similar vein, other articles in DP also presents technical problems of chicken raising, describing severe problems with the animals, as if they were no sensitive or sentient creatures or with no care at all about their welfare. For example, an article from 1970, titled “Poor conformation and calluses: the evils of cage farming”. The article

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<sup>33</sup> Joseph Barber *et al*, *The Chicken: A Natural History* (Princeton, NJ: Princeton University Press, 2018).

<sup>34</sup> Arno Voigt, “Debicagem Maciça,” *Diário do Paraná*, November 13, 1966, <http://memoria.bn.br/DocReader/761672/60599>.

<sup>35</sup> Barber *et al*, *The Chicken*, 47.

<sup>36</sup> C. H. Oka *et al*, “Performance of Commercial Laying Hen Submitted to Different Debeaking Methods,” *Brazilian Journal of Poultry Science* 19, no. 4, (2017): 717-724, <http://dx.doi.org/10.1590/1806-9061-2017-0537>.

<sup>37</sup> Arno Voigt, “Debicagem Maciça”.

only shows how the new experimental practice of raising chickens for meat in a cage would cause damage to the animal's body, like calluses on the chest and ailments on the legs. It concludes by saying that: "It is not known why a chicken raised in a cage has less breast meat, thinner thighs and a narrower back than one raised conventionally. Lack of exercise may be the root cause"<sup>38</sup>.

All the problems that would affect the chickens were concerned primarily because would in the end cause damage to the quality of the carcass, and thus, affect the profits of farmers and slaughterhouses, and not because of the animals themselves. In an article of 1972 in DP it is recognized, in a rare instance among the articles surveyed, that the birds have emotional lives, but only in order to show how reduced lights increase performance or avoid "heavy losses". The article is titled "Less light reduces cannibalism".

While very bright lighting makes birds nervous, confused and irritable, soft lighting has the opposite effect. It acts as a tranquilizing factor and keeps birds docile and submissive. Thus, reduced lighting constitutes a valuable aid for the modern poultry farmer's management and makes debeaking, which causes so much "stress" in birds, practically unnecessary.<sup>39</sup>

Many technical procedures that cause pain or suffering to the chickens were recommended and their adoption by farmers were even considered to be a sign of progress and modernity. In another article of 1972, for instance, it was displayed a photograph of chickens inside a small, wired cage, a standard practice for chickens destined for egg production, and immediately below the photograph was a positive description of the sector, remarking that: "Brazilian poultry farming has evolved significantly in recent years and is compared today, within the technical levels of the most advanced and traditional poultry producing countries."<sup>40</sup>

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<sup>38</sup> "Má Conformação e Calos: os Males da Criação em Gaiolas," *Diário do Paraná*, January 25, 1970, <http://memoria.bn.br/DocReader/761672/75551>.

<sup>39</sup> "Menos luz reduz canibalismo," *Diário do Paraná*, March 26, 1972, <http://memoria.bn.br/DocReader/761672/86316>.

<sup>40</sup> "Paraná Agrícola," *Diário do Paraná*, July 2, 1972, <http://memoria.bn.br/DocReader/761672/87334>.

Notwithstanding these technical recommendations as if the welfare of chickens were nonexistent or not important, in the end, as was the case with Descartes in the seventeenth century, it was not possible or convincing to deny the reality of animal cruelty. What was possible in the case of a newspaper like DP is to turn that deliberately almost invisible, unthinkable in most instances, but certain exceptions arise in the newspaper to remind us that not everybody has forgotten that chickens were sensitive creatures and deserves respect. For example, in the context of one of the sector economic crises, in 1980, the regional president (for Maringá) of the Paraná Poultry Association announced that the poultry farmers of Paraná would throw in rivers, as a form of protest, 850 thousand chicks if the government in a few months did not increase the minimum price paid to producers<sup>41</sup>. One week later, DP comments this protest and call it “senseless attack”:

According to the president of this entity, Laércio Cardoso, producers affiliated with the Paraná Poultry Farmers Association were firmly determined to drown day-old chicks in rivers, in protest to be scheduled soon, in demand to Federal Government for the setting of minimum prices for chicken meat. Just by announcing the Association's sponsorship of this idea, Mr. Laércio Cardoso should receive the unanimous repudiation of all lucid people in this State or even be called to answer, before the Court, for inciting this senseless attack on animal life. If the leader of the poultry farmers seeks to raise society's awareness of his cause, the justice of which cannot be discussed here, he has chosen a path that should provide completely opposite results.<sup>42</sup>

One possible interpretation in this excerpt alone is that DP was not sided politically with the Paraná Poultry Farmers Association, but certainly this can be dismissed through a more careful analysis of the newspaper, that actually give considerable space for the poultry association and farmers in general, even to the point of open criticism to the military government of the time.

More important for the objective of this study is to point out that this kind of article shows that people were aware of animal suffering, but maybe only complacent

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<sup>41</sup> “Avicultores destruirão pintos em protesto contra o preço,” *Diário do Paraná*, August 13, 1980, <http://memoria.bn.br/DocReader/761672/143038>.

<sup>42</sup> “Descabido atentado,” *Diário do Paraná*, August 21, 1980, <http://memoria.bn.br/DocReader/761672/143145>.

with all these painful procedures of the industry because somehow it was believed to be inevitable to produce and consume the cheapest meat possible.

## CHICKEN CONSUMPTION

Estimating the exact consumption of chicken or meat in general by the population of Brazil and Paraná in particular in the period 1960-80 is something difficult, considering the lack in general of available data and the reliability of the numbers. It appears that the best available information are the data provided by FAO (Graph 1), even considering the limits of this kind of data, as pointed by Vaclav Smil<sup>43</sup>, but only for the whole of Brazil, and not for states, cities, urban x rural, age, gender, layers of income or level of formal instruction.

The FAO data is obtained by the total meat production of the country less exports. This can err by not correctly quantifying the production amounts, because something of production is not registered, especially those that are obtained in backyards or “subsistence farms”. At the consumption place, it is not so easy to guess how much is simply wasted in kitchens or after meals, distorting what is actually consumed.

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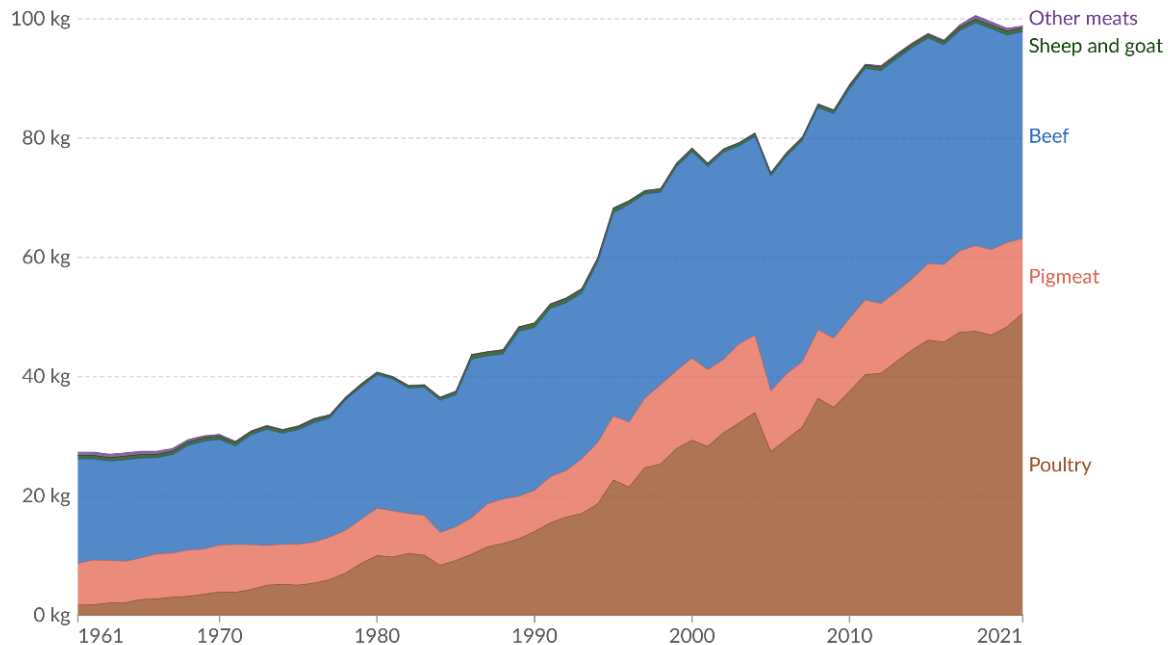
<sup>43</sup> Smil, *Should We Eat Meat?*

Graph 1. Per capita meat consumption by type, Brazil, 1961 to 2021 (not including fish or seafood)

## Per capita meat consumption by type, Brazil, 1961 to 2021



Per capita meat consumption is broken down by types of meat, and is measured in kilograms per person per year.



Data source: Food and Agriculture Organization of the United Nations (2023)

OurWorldinData.org/meat-production | CC BY

Note: Data does not include fish and seafood. Figures show meat supply and do not correct for waste at the household level and, so they may not directly reflect the quantity of food consumed by a given individual.

Source: Food and Agriculture Organization of the United Nations – processed by Our World in Data, “Per capita meat consumption by type, Brazil, 1961 to 2020,” accessed January 22, 2025, <https://ourworldindata.org/grapher/per-capita-meat-consumption-by-type-kilograms-per-year?country=~BRA>.

Holding these caveats in mind while looking at the Graph 1, it is useful to understand that poultry (mostly chicken) meat was much less consumed in Brazil and Paraná in the beginning of the 1960s, as can be confirmed in the pages of DP. As already discussed, chicken meat was considered more a thing for Sundays, not the everyday kind of meat that became later in the 20<sup>th</sup> century. In a sense that maybe is diminishing or gradually disappearing nowadays in Brazil, chicken meat was sometimes even not considered a kind of meat. We can see this for example, in a section of DP called “our opinion”, in 1965, under the title “eat less meat”<sup>44</sup>. Contrary to what would appear to a reader at first glance, the article was not defending a reduction in meat consumption, but that people should reduce the consumption of beef. The “opinion of DP” was shared

<sup>44</sup> “Nossa Opinião: Coma menos Carne,” *Diário do Paraná*, October 8, 1965, <http://memoria.bn.br/DocReader/761672/55354>.

by many people of the time, as can be seen through other editions of the newspaper, and it is revealing of many issues regarding chicken consumption and production in Paraná at the time:

Technicians consider, as we reported yesterday, that our population consumes too much beef. Two hundred cattle would be, on average, being slaughtered here for consumption by the population of the Capital. They suggest, therefore, since the guarantee of this food has long experienced periodic crises, at least to justify constant increases in the price of steak, that the consumption of other types of meat be encouraged. In fact, it seems doubtful to us that it will be possible to prove, through statistics, that Brazilians, and people from Curitiba in particular, go the extra mile when it comes to acquiring this food, although no one can deny their preference for it. However, we are ready to recognize that, indeed, it is necessary to encourage the consumption of meats other than beef, but above all for the benefit of the popular economy. That is, effectively giving the consumer the opportunity to purchase, at more rewarding prices, and more often, fish, goat, pig, chicken, sheep, etc. We know, for example, that poultry farming is one of the largest sources of food supply in the United States, as we know that Brazilians in general, and people from Curitiba in particular, greatly appreciate chicken meat. But any housewife in Curitiba will be able to show the enormous difference that exists in terms of use, for the family's diet, between a kilo of beef, which sometimes costs 1,200 cruzeiros, and a kilo of chicken, which, with its preponderance of bones, costs 1,400 or 1,450 cruzeiros. The same could be said for 1kg of fish, although it costs less, or for one of shrimps, which now costs 1,800 to 2,000. In short, the problem must be seen, also if not fundamentally, through the prism of popular economics.<sup>45</sup>

It is interesting to note from this excerpt that chicken meat was more expensive than beef, and this would be a reason to explain why chicken was less preferable than beef by the population. Chicken was more expensive because it was an economic sector very little developed at the time, compared to more recent decades, and also considering the poor transport and energy infrastructure of the rural regions of the state prevailing in that time. More than price, the article notes that the housewife knew that chicken meat yielded not so much because of the amount of bones in it, what should be a more pronounced issue of the general body profile of the animals of this time.

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<sup>45</sup> "Nossa Opinião," *Diário do Paraná*.

What needs to be considered for the present analysis is that, despite the economic growth of recent decades, Brazil is still a poor country, considering the GDP per capita, ranked 84<sup>th</sup> among the nations in the world in 2022<sup>46</sup>. By the 1960s the situation was much worse, and even Paraná being one of the wealthiest states of the country, considerable inequality existed, and much of the income of the population, especially the poorest layers, were devoted simply to buy food. In that context, meat and food in general were harder to buy than nowadays, as it can be inferred also from the more recent prevailing of overweight and obesity among the Brazilian population. That is why the article quoted mentions “periodical crises” in meat supply, first of all, treating meat as if were essential, and in contrast to the present context in Paraná or Brazil, where this is not more considered a problem. By that time, the memory of the episode of February 1952 in Curitiba, the “meat strike”, where protests against meat prices, violence on streets and several looting on butcher shops by the population in search for meat, and lead us to the opening words of this article by President Lula, to remind us that still today meat consumption is a sensitive topic for the political discourse<sup>47</sup>.

Throughout the 1960s and 1970s it can be found in DP several articles dealing with crises related to meat price (chicken included) and even shortage of meat available in butcher shops and supermarkets. In many articles of the 1960s, some even authored by the well-known journalist Assis Chateaubriand, it appears the idea that beef should be spared for export, in order to the country obtain foreign currency, and chicken production and consumption should be developed to feed the Brazilian population, often quoting the US experience with the chicken industry<sup>48</sup>. In this context that we understand the quotation of this article first paragraph, by the president Emílio Medici in 1972 tackling the necessity, according to his opinion, of educating the Brazilian population to eat more chicken.

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<sup>46</sup> GDP per capita, PPP - Country rankings, accessed January 22, 2024, [https://www.theglobaleconomy.com/rankings/GDP\\_per\\_capita\\_PPP/](https://www.theglobaleconomy.com/rankings/GDP_per_capita_PPP/).

<sup>47</sup> Renato Mocellin, *História Concisa de Curitiba* (Curitiba-PR: Remo, 2020); Fernando Schinimann, “A Batalha da Carne em Curitiba 1945-1964,” Master’s Thesis in History (Universidade Federal do Paraná, 1992).

<sup>48</sup> Assis Chateaubriand, “O Rio Grande Boreal e o Trópico Úmido,” *Diário do Paraná*, September 1, 1965, <http://memoria.bn.br/DocReader/761672/54925>; Assis Chateaubriand, “Um Borghoff com Muitos Efes e Poucos Erres e de Côvado e Meio de ‘Pince-Nez’,” *Diário do Paraná*, October 24, 1965, <http://memoria.bn.br/DocReader/761672/55554>.

All these discussions offer a huge contrast to the present situation, where Brazil, and Paraná, is one of the highest consumptions of meat (and chicken meat) per capita in the world, and also one of the leading exporters of all kinds of meats, with great negative consequences to its natural biomes and for the animal populations<sup>49</sup>. But in the 1960s, the agricultural sector in general in Brazil was only in the beginning of a grand transformation, where the country was poorly able to feed his own population, less so to export, except for coffee<sup>50</sup>. In that context, the Brazilian governments since Jânio Quadros, João Goulart and even the generals-president of the military dictatorship starting in 1964 were struggling to deal with inflation of the food products. The population of Paraná and Brazil was moving very fast to the cities, that suddenly had to feed growing populations, and the agricultural sector was much less productive to deal with this transition, resulting in a considerable pressure over prices of food. In the period of 1964-67, the average annual inflation was 45%, decreased to 19% in 1968-73, during the so called “Brazilian Miracle”, and increased again to the annual average of 51% in 1974-80<sup>51</sup>.

The approach of governments of that time (civil and military) to deal with the inflation problem, although the economy as a whole was growing fast, was to set official prices and create official bodies to enforce it. The official body government was SUNAB (National Supply Superintendence), whose actions received plenty of attention in DP. According to Geraldo Barros this kind of action created disincentives to farmers, because they could not raise their prices of sales, compromising their profits.<sup>52</sup> DP shows several examples, especially in the late 1970s and early 1980s when the pressure of inflation was growing, whilst the poultry farmers were protesting against the

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<sup>49</sup> Tony Weis, *The Ecological Hoofprint: The Global Burden of Industrial Livestock* (London and New York: Zed Books, 2013); Food and Agriculture Organization of the United Nations – processed by Our World in Data, “Per capita meat consumption by type, 1961 to 2020,” accessed January 22, 2024, [https://ourworldindata.org/grapher/per-capita-meat-consumption-by-type-kilograms-per-year?country=BRA~OWID\\_EU27~OWID\\_WRL](https://ourworldindata.org/grapher/per-capita-meat-consumption-by-type-kilograms-per-year?country=BRA~OWID_EU27~OWID_WRL).

<sup>50</sup> Geraldo S. de C. Barros, “Agriculture, industry and the economy: from extensive farming to a global agro-food power” in *Agricultural Development in Brazil: The Rise of a Global Agro-food Power*, edited by Antonio M. Buainain, Rodrigo Lanna, and Zander Navarro (New York, NY : Routledge, 2019), 12-29, Kindle.

<sup>51</sup> Fabio Giambiagi et al, *Economia Brasileira Contemporânea (1945-2010)*, 2nd ed. (Rio de Janeiro: Elsevier, 2011), 266.

<sup>52</sup> Barros, “Agriculture, industry and the economy”.

government to protect their business by augmenting prices for their sold chicken<sup>53</sup>. At the consumer side, DP shows a very complex situation, with periodical crises of shortages of meat in butcher shops, and photographs with lines of people trying to buy meat early in the morning<sup>54</sup>. Especially along the 1970s DP mentions several butcher shops and even slaughterhouses closed by SUNAB for not respecting the prices fixed by the government, and the existence of a meat black market<sup>55</sup>. The activities of SUNAB appears in DP since the 1960s, and an article from 1974 remarked that only in Curitiba, 49 butcher shops were closed by this government agency since the beginning of the price sets in a date not informed<sup>56</sup>.

Rounding all these discussions about shortage of meat in DP lies an almost invisible assumption. Like the invisible assumption and reality of the welfare of the chickens, discussed above, the almost invisible one here is to consider meat as an essential kind of food, and therefore a necessity for the population. Rather than presenting the issue as a matter of choice and desire, the articles in DP treat the consumption of meat and chicken in particular as an inevitable thing. Chicken in these decades (1960-80) was even emerging out of its secondary role as a meat substitute, i.e., beef substitute, and gradually becoming established by his own status. The government (federal and state level) by the end of the 1970s was engaged along with the poultry farmers association in campaigning for the increase in the consumption of chicken and eggs, showing that there was no concern at all in establishing limits or clear goals of consumption, that is, not displaying responsibility in relation to health issues of the population<sup>57</sup>. On the other hand, DP also shows a few examples that the state government was trying to increase the consumption of soy by the population in the end

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<sup>53</sup> "Avicultor diz que está em crise," *Diário do Paraná*; "Aves: um programa," *Diário do Paraná*, June 24, 1978, <http://memoria.bn.br/DocReader/761672/129857>; "Paralisação de exportação gera crise na avicultura," *Diário do Paraná*, August 25, 1978, <http://memoria.bn.br/DocReader/761672/131129>; "APAVI não quer aumento de insumos," *Diário do Paraná*, March 14, 1980, <http://memoria.bn.br/DocReader/761672/140972>.

<sup>54</sup> "Até dezembro a carne vai faltar no Paraná," *Diário do Paraná*, August 23, 1972, <http://memoria.bn.br/DocReader/761672/88149>; "Carne baixa de preço mas falta no mercado," *Diário do Paraná*, December 16, 1973, <http://memoria.bn.br/DocReader/761672/95548>.

<sup>55</sup> "Sunab fecha outro frigorífico no PR," *Diário do Paraná*, January 5, 1974, <http://memoria.bn.br/DocReader/761672/95839>; "Nossa Opinião: Disparada," *Diário do Paraná*, October 6, 1973, <http://memoria.bn.br/DocReader/761672/94502>; "Câmbio Negro da Carne Continua," *Diário do Paraná*, March 6, 1974, <http://memoria.bn.br/DocReader/761672/96750>.

<sup>56</sup> "Sunab fecha mais três açougues," *Diário do Paraná*, February 2, 1974, <http://memoria.bn.br/DocReader/761672/96291>.

<sup>57</sup> "Campanha pelo consumo do frango," *Diário do Paraná*, January 29, 1980, <http://memoria.bn.br/DocReader/761672/140299>; "Frango," *Diário do Paraná*, November 18, 1980, <http://memoria.bn.br/DocReader/761672/144363>.

of the 1970s, and recognizing its value as a meat substitute, but apart from soy oil and some instances of soy extender in industrialized meats, it seems soy products did not take off until recent years in Brazil, and only in limited sections of the population<sup>58</sup>.

## CONCLUSIONS

As this study could show using an important newspaper from the state of Paraná, chicken production and consumption experimented an ascension in numbers and status during the 1960s and 1970s, mainly connected to the Green Revolution in the country and specifically the expansion of credits, extension and grain production used as feed, led by maize and soy. The chicken passed from the Sunday meal, and commonly raised in backyards, to a big business connected to exports to Arab countries. This grain-chicken meat complex evolved fast in Paraná and can be implicated to several major impacts on the local environment, like ecosystems loss and other consequences of the increased use of fossil energy. It was a time of fast changes also in the urban environment, with growing cities, inflation and increased consumption of chicken and other kinds of meats. In the midst of production and consumption lies the living sentient creature, the chicken, whose welfare was generally not recognized officially, but appears that everybody knew it was there, but that it somehow was not considered relevant enough compared to the desire to eat it. As it was common in that context, the consumption of meat, and the killing of animals for it, was simply naturalized, not taking considerations of the rights of animals to live or health considerations of the limits of meat consumption for the population.

The economic and political context of chicken production and consumption in Paraná were also briefly examined. It was a period of military government, with its approach to food production totally different to the present situation, much more oriented to strong state intervention in the food sector, with attempts, successes and failures to regulate strictly the prices of meat, and the many struggles with butcher

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<sup>58</sup> "O esforço na busca de alimentos," *Diário do Paraná*, August 12, 1979, <http://memoria.bn.br/DocReader/761672/105453>; "Acordo de cooperação para o programa de cooperação," *Diário do Paraná*, February 8, 1980, <http://memoria.bn.br/DocReader/761672/140474>; "Inflação: a carne virou artigo de luxo," *Diário do Paraná*, September 19, 1980, <http://memoria.bn.br/DocReader/761672/143543>.

shops and poultry farmers, that lived in constant tension and criticism, although the dictatorship of the government did not tolerate many complaints. In this context, DP shows many voices, some of them apparently at odds with the times, but most of them certainly aligned with the more influential, politically and economically speaking, of the interests of the moment, that was a constant effort to increase the production and consumption of chickens. At first, the increase in production and consumption of chicken was seen as an efficient way to solve problems of perceived meat shortages and appease the population, but soon after the beginning of exports it was readily recognized the economic potential of the chicken industry in its own right. The persistence of the political discourse over the decades around meat consumption shows the importance of this issue in Brazil, even considering the changes from the military governments to democracy. Finally, it would be interesting to investigate more in depth this same experience of modernization of chicken production and increased consumption of meat in other Latin American countries, in that context marked by the Cold War, several authoritarian regimes and profound social changes.

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## Del Patio Trasero a La Granja Industrial: Producción y Consumo de Pollos en Paraná, Brasil (1960-1980)

### RESUMEN

Basado en una investigación de más de 1.500 artículos de un periódico influyente de Paraná, el “Diário do Paraná”, este artículo presenta una investigación sobre la historia de la producción y el consumo de pollo en el estado de Paraná, Brasil, discutiendo sus consecuencias sobre el medio ambiente y el bienestar/derechos de estos animales. Este es un epicentro para la historia del pollo en Brasil y en todo el mundo. El enfoque del análisis es el período 1960-1980, prestando atención al contexto político y económico, con el fin de dar sentido al paisaje cambiante del medio ambiente rural, los aportes y recomendaciones científicas o técnicas, los acuerdos institucionales y la política, así como las agencias gubernamentales involucradas. En el proceso, se analizaron los cambios que surgieron de ese período en términos de producción y consumo de pollo y se correlacionaron con transformaciones más amplias del desarrollo agrícola de Brasil durante los gobiernos militares y su rápido proceso de urbanización. Durante este tiempo, se establecieron muchas características centrales de la industria avícola contemporánea y se inició un patrón de consumo de pollo, aun cuando el bienestar del pollo rara vez se mencionaba en los debates de los periódicos.

**Palabras clave:** producción avícola; consumo de pollos; bienestar de los pollos; historia ambiental de Paraná.

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