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Getting the Real Price: are the American Incentives to Corn Ethanol Illegal under the WTO?

Arthur S. Rodrigues[1]

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Resumo

O propósito desse artigo foi verificar se os incentivos norte-americanos ao etanol de milho poderiam ser considerados ilegais ou não frente à Organização Mundial do Comércio (OMC). Buscou-se ainda desmistificar a ideia de que apenas eram dados subsídios diretos aos *blenders* e relatar brevemente o grande número de programas, mesmo excluindo os estaduais. Insere-se neste sentido a OMC, que dispõe de regras que caracterizam um subsídio como ilegal ou não, dentro do seu Acordo sobre Subsídios, como também dentro do Acordo sobre Agricultura. Os subsídios agrícolas dispõem de regras específicas, que foram parcialmente derrogadas com o fim da Cláusula de Paz. No caso dos EUA, conclui-se que o etanol ser ou não um produto agrícola é irrelevante, aplicando-se sempre o Acordo sobre Subsídios. Por fim, verifica-se que as medidas de incentivo à produção de etanol nos EUA podem, em geral, ser consideradas subsídios ilegais no âmbito da OMC, em razão de preencherem os requisitos de serem contribuições financeiras, que concedem benefício financeiro e são específicas. À exceção desta conclusão geral está o imposto de importação e os programas de incentivo à pesquisa de novas tecnologias.

Abstract

The purpose of this paper is to examine whether the incentives to the American production of corn ethanol could be considered illegal or not under the World Trade Organization (WTO) rules. This paper tried to reconstruct the idea that were only given direct subsidies to *blenders* and report briefly the large number of programs and incentives for producers and farmers alike, even excluding the State level ones. The WTO, which has rules that characterize an incentive as illegal or not, within its Agreement on Subsidies, but also within the Agreement on Agriculture is particularly relevant in this context. Regulation of agricultural subsidies has specific rules, which were partially repealed with the end of the Peace Clause. In the U.S. case, the paper concluded that whether ethanol is an agricultural product or not is irrelevant when applying the Agreement on Subsidies. Finally, it appears that the incentives for ethanol production in the United States can generally be regarded as illegal subsidies under the WTO, because they meet the criteria, which constitute specific financial contributions that provide financial benefit. The few exceptions for this general rule are the import tax and the incentive programs for research into new technologies.

1. Introduction

The reason of the growing use of alternative energies to fossil fuels is basically due two reasons: the need to combat their harmful effects to the environment and to diversify energy sources and to ensure their supply. In the case of United States of America, these reasons are even more relevant: the concern with clean energy sources is widespread and the cost to keep supplies secure, which usually come from unstable regions like the Middle East, is also growing. Biofuels - especially ethanol - are an alternative for reducing the use of fossil fuels, since they can be produced locally or imported from more stable regions, and depending on their sources, they can reduce greenhouse gas emissions by up to eight times.

[1] M.Sc. Law Professor – UERJ/UFJF. Lawyer (RJ).

Together, the United States and Brazil account for more than 70% of the total world production of ethanol. Moreover, ethanol itself accounts for most of the entire biofuel produced in the world. However, the raw material used by each country is completely different: in the U.S. corn (maize) is used and in Brazil sugarcane. This change in the source of the sugar used to obtain the alcohol makes the production processes quite distinct, affecting its cost and its environmental benefits.

To encourage the production of ethanol from corn, the U.S. offers various types of incentives for its producers. These incentives range from direct aid to an import tariff on the product. However, they can also be considered illegal or actionable subsidies within the World Trade Organization, the GATT and other Agreements.

This article will be divided into two main parts: the first will describe some of the federal incentives for ethanol production in the U.S. and the second will deal with the subsidy regime of the WTO and its relationship with these incentives, trying to identify whether they are illegal or not under the regulations of this Organization.

2. The Measures or Incetives to Ethanol Production in the U.S.

There are countless programs to encourage the production and use of alternative energies. Those incentives are not only aimed to alternatives such as the biofuels, but they are also financial resources for other clean technologies ranging from electric power generation by wind to fuels made from algae. In this paper, will be seen only federal incentives for ethanol in the country, including corn ethanol and some aspect of the cellulosic one.

YACOBUCCI (2009) cites 24 federal programs in the U.S. that incentive biofuels production in the last 27 years, while HAHN (2008) cites 12 active, KOPLOW (2006) says only for biodiesel there are more than 160 Acts providing benefits for producers and the Department of Energy (DOE, 2009) lists 10 active measures.

These programs are administered by the Environmental Protection Agency (EPA), the U.S. Department of Agriculture (DOA), the Department of Energy (DOE), the Internal Revenue Service (IRS) and the Customs and Borders Protection (CBP).

Unlike what is commonly believed, these incentives are not restricted to tariffs or indirect incentives to producers, but also grants and loans to producers, research institutes, refineries and blenders. How then is possible to characterize such incentives as subsidies? Are they simply transfers made directly to the producers? And subsidies for the production of corn, which indirectly influence the ethanol? They should be considered too? And the incentives for the purchase of vehicles should also be considered? All those questions show how difficult is to define the scope of ethanol subsidies. In this work, only the very direct ones are mentioned. Much more is available.

2.1. Administrated by the Environmental Protection Agency

The main incentive for ethanol production is administered by the EPA and it is called the Renewable Fuels Standard (RFS). Created in 2005, under the Energy Policy Act, it sets a minimum use, with gradual growth (Figure 1) of renewable fuels, i.e., it seeks to extend the use of ethanol and other biofuels as much for its blending with gas and diesel, as for its direct use. It does not establish a minimum average consumption, but a total one.

Two years later the RFS suffered a major expansion (Figures 1 and 2) in its goals through the Energy Independence and Security Act (EISA). Originally, it covered only ethanol in gasoline and with this modification the law sought to cover all transportation fuels. The main advantage of this system is that it is not a direct subsidy given by government, only guaranteeing producers a minimum market for its products. It does not discriminate between national and foreign ethanol directly. However, the Act explicitly states that advanced ethanol is "all but corn ethanol". This program has no set date for its completion and, until now, the EISA sets targets by the year 2022.

Another fundamental change after 2007 was to determine that part of the ethanol produced should be "advanced", as mentioned. This distinction came in response to criticism that corn ethanol was not clean enough. In 2009, EPA has defined what would be considered advanced fuels, stating expressly that are biofuels not coming from corn, accordingly to the EISA. In this definition, the EPA added ethanol from sugarcane.

2.2. Administrated by the Internal Revenue Service

U.S. law provides numerous tax credits to producers and marketers of ethanol in the country. Within the Internal Revenue Code, Miscellaneous Excise Taxes, Retail Excise Taxes, Special Fuels, are mentioned 21 tax credits related to alternative fuels (CCH, 2008).The ones that concern for this paper are those related to benefits given to blenders the mixture with gasoline (ethanol blenders) and the credits given to producers of biofuel made from cellulose.

A major incentive often confused when analyzed by the press and also other less technical publications is the Volumetric Ethanol Excise Tax Credit - (VEETC). Administered by the Internal Revenue Service it consists of a tax credit for fuel distributors that are responsible for blending with ethanol (blenders). Not an incentive given directly to farmers but to those responsible for mixing gasoline and alcohol (blenders). This credit is different to others that are given directly to producers, usually in the form of grants or guaranteed loans.

The credit is provided through an income tax refund. To obtain the amount to be credited, it is only needed to multiply the number of gallons of ethanol used by the taxpayer for the production of fuel mix. If 100 gallons are used, for example, the credit would be US$ 45 (already with the new percentage). Thus, it does not matter if the mixture has reached any relevant percentage in the fuel receiving ethanol, such as 10% or 20%.

Another measure under the supervision of the Internal Revenue Service is the Small Ethanol Producer Credit (SEPC) for ethanol producers with annual capacity of less than 60 million gallons (that number jumped from 30 million gallons through the Energy Policy Act (PL 109-58), from August 8, 2005). Despite its name, this is actually a subsidy of US$ 0.10 per gallon produced (US$ 0.02 per liter) to the maximum of 15 million gallons (56 million liters) per producer. Thus, the beneficiaries of the credit have an annual ceiling of US$ 1.5 million dollars. It is only valid for ethanol production.

The plants which use a special enzymatic process to produce the cellulosic ethanol also have a special benefit to deduct from the income tax, called the Special Depreciation Allowance for Cellulosic Biomass Ethanol Plant Property, which allows the producer an accelerated depreciation of facilities used for ethanol production.

2.3. Administrated by the Department of Agriculture

With respect to incentives that are indirectly administered by the Department of Agriculture (USDA) some of the programs were discontinued, others are still without a budget and there are those who continue to produce effects. Moreover, those incentives are usually given in the form of guaranteed loans and direct grants until certain limits of budgetary allocation (unlike the case of tax credit) are reached. Those loans are not always repaid.

Managed by the Rural Business Cooperative Service, the Rural Energy for America[1] provides grants, loans and guarantees for loans to develop renewable energy projects and improvements in energy efficiency. Are only qualified, however, small farmers and small rural businesses. Direct grants are limited to 25% of the project and guaranteed loans to 50% of the total project (USDA, 2009).

The program of Business and Industry (B & I) Guaranteed Loan is also administered directly by the Rural Business Cooperative Service, submitted to the Department of Agriculture and provides up to 90% of the loans made by businesses. It has a broad application and almost any entrepreneur is qualified. Intended to guarantee loans related to cash flow (working capital), machinery and equipment, construction, buildings for use in the company and refinance of certain debts with better rates.

Created by The Food, Conservation, and Energy Act (FCEA) of 2008, the Biorefinary Assistance does not yet have a specific agency within the Department of Agriculture to administer it. Targeted for completion by the end of 2012, it has US$ 245 million in 2010 for loan guarantees, and US$ 150 million previously authorized for each of its years of operation.

Created by FCEA 2008, the Bioenergy Program for Advanced Biofuels also lacks an agency within the Department of Agriculture to administer it. Its term will last until the end of the fiscal year of 2012 and has funds of about US$ 55 million for 2009 and 2010, US$ 85 million for 2011 and US$ 105 million for 2012, plus US$ 25 million annually in spending already approved for each of its years of operation.

2.4. Administrated by the Department of Energy

The Energy Department also has primary responsibility for administering some funds related to the research of new technologies (GAO, 2009), especially cellulosic ethanol and from other waste, such as waste from production of corn. In addition, the DOE regulates The Corporate Average Fuel Economy program (CAFE) and verifies its implementation, which includes benefits to automakers that produce more efficient vehicles and capable of using alternative fuels.

The first support measure studied under the DOE is the Biomass Research and Development Initiative, administered directly by the National Biomass (a partnership between the Departments of Energy and Agriculture). Grants are awarded for research, development and projects on biomass. These projects may include plants of ethanol and biodiesel, synthesized using new technologies and new materials. Effective date: until fiscal year 2015. It has legal permission in the budget of US$ 200 million annually, but for fiscal year 2008 were only requested US$ 12 million for fiscal 2007, US$ 14 million.

Still aiming to secure funding for research into new transformation methods of biomass into biofuel, the Biorefinary Project Grants is administered by the Office of Energy Efficiency and Renewable Energy, an arm of the Department of Energy. Despite the name, such measures are not solely designed for the construction of biorefineries but also to projects that are intended to obtain electric power and other chemicals. No time for its maximum term.

[1] Formerly "Renewable Energy Systems and Energy Efficiency Improvement".

It was established in the fiscal year of 2001 through sparse legislation and for the fiscal year of 2008 were US$ 179 million intended for the program. The beneficiaries are all researchers and producers in this area, one particularity is that the goals of the program vary each year and so their priorities for assistance.
DOE Guarantee Loan Program is another measure to grant loan guarantees from the Department of Energy. It aims to incentive the use and development of clean energy sources, without giving a specific beneficiary or preferred technology. The guaranteed value can be very impressive: US$ 38.5 billion for the fiscal year of 2008, which US$ 10 billion of these are directed to renewable energy and energy efficiency and US$ 5.3 million for administrative expenses. The main objective of the program, therefore, is to reduce emissions of greenhouse gases and development of clean energy.

2.5. Administrated by the Customs and Border Protection

The last incentive to be studied is the protection of the domestic market maintained directly by the U.S. Customs. Administered by the Customs and Border Protection (CBP), the Import Duty for Fuel Ethanol is a measure which directly affects the most ethanol exports to the U.S. Such restrictions impose on the imported ethanol an import tariff of 2.5% and a fixed rate per gallon of US$ 0.54 (US$ 0.14 per liter).The countries of the Caribbean Basin Initiative (CBI) are exempt from this taxation.

The creation of this tariff was supposedly due to prevent predatory competition for domestic U.S. producers of ethanol. Moreover, Congress did not want the tax credit, which is assigned for all who blends ethanol with gasoline, end up benefiting other countries, like Brazil (HAHN, 2009). As said, this tax credit is aimed not only to domestic producers, but to blenders in general.

However, despite the similarity of the values of the tariff and the credit at the time of enacting the Farm Act, this argument is no longer justified. The tariff for imported ethanol is currently on US$ 0.54 per gallon (US$ 0.14 per liter), while the benefit to those responsible for blending ethanol with gasoline is on US$ 0.45 a gallon (US$ 0.12 liter). In other words, the fixed rate together with the tariff is clearly designed to protect the local producers of ethanol.

3. Subsidies under the WTO

Part of what we understand today as the World Trade Organization emerged in the postwar era, under the so-called United Nations Monetary and Financial Conference or, more commonly known, the Bretton Woods Conference. Thus, three institutions were defined: the International Monetary Fund (IMF), the International Bank for Reconstruction and Development (IBRD) and International Trade Organization (ITO). Despite the failure of the latter, the involved countries signed the GATT (General Agreement on Tariffs and Trade), without any pretense of becoming an organization that would organize or regulate trade. Still, after successive new agreements and changes in their application the GATT was transformed and institutionalized, becoming the basis of what is now known as the WTO, created in the context of the Uruguay Round. The WTO is the institution that takes care of the enforcement of general rules of international trade, possessing a general agreement on subsidies (Agreement on Subsidies and Countervailing - SCM) and other specific agreements for certain sectors, especially the Agreement on Agriculture. The WTO Agreement and all other agreements entered into force on 1 January 1995.

The WTO will ban some types of subsidies, which generally are illegal incentives or measures that are market-distort and also because they give disproportional advantages to exporters. Under the WTO, subsidy is any financial benefit given by the government or the public administration in general or its organs, directly or indirectly, or any form of income or support and maintenance of prices to domestic producers and businesses.

For a measure or incentive be considered an illegal subsidy under the Agreement, it must meet certain requirements. They are in Article 1 of the Agreement. MATSUSHITA ET AL (2006), reviewing the Agreement on Subsidies, argue that three elements will turn an incentive or measure an illegal subsidy.

Thus, these three elements are:

1. The measure or incentive must represent financial assistance or income support by the government, directly or indirectly;
2. Represent a benefit to the recipient and
3. Are for a specific recipient.

Typically, the Agreement on Subsidies forbids subsidies that are aimed at restricting foreign products in the importer's domestic market or that grant benefits to exporters, to increase or maintain their access in foreign markets. Thus, domestic subsidies are not always forbidden under the WTO rules. As will be seen, they are illegal if they cause damage to the domestic industry of another member or restrict access to the domestic market from foreign producers. However, with the integration and internationalization of markets, it becomes almost impossible an internal restriction that does not affect a foreign market. However, econometric studies usually help deciding whether there was an injury or not.

The Agreement on Agriculture (AA) was the result of intense negotiations around the subject promoted by the so-called Cairns group, which is a group of agricultural products exporters[2] and also due reforms in the body of the European Communities to bring more rationality to their farm subsidies .There was great difficulty in the subject because of the old GATT rules did not in practice apply for agricultural products. Despite this limited applicability of the GATT, panels were introduced to review cases involving agricultural products (Delcros, 2002).The AA was not enough to put a limit on subsidies: rich countries have spent around 300 billion dollars annually in agricultural subsidies, the equivalent of US$ 1 billion per day (Cross, 2006).

Then what is the extent of this specific agreement? Unlike the GATT, the AA has been explicit in defining what agricultural products are and that it applies to them. The document in its Annex 1 points out to the Chapters 1-24 of the Harmonized System, which are some[3] goods, furs and other oils. It is therefore an exhaustive list. Within these chapters of the HS are agricultural products ranging from cotton to milk and include ethanol, but does not include biodiesel.

Thus, those specific and general limitations about the level of allowance permitted, i.e., the level of subsidies that would be protected from being actionable, there are also specific prohibitions for domestic and export subsidies. The WTO system for agriculture has also two modes of control: a general for all types of subsidies, whether domestic or for export, which are the Aggregate Measure of Support and Support Equivalent, and a specific one forbidding and allowing per se certain practices.

Until December 31, 2003, was still valid the so-called "peace clause", also called "due restraint" in Article 13 of the AA. This article provides that the measures in accordance with Annex II of the AA would be considered non-actionable and therefore, even if proven injury, could not be brought to the settlement system of the WTO dispute to date. However, how one might interpret the passage of the deadline the peace clause?

Authors like Delcros (2002), minimizes the effects of the end of the clause. However, PORTERFIELD (2006) argues that the end of the peace clause is almost the end of the Agriculture Agreement. For the author, all agricultural subsidies that cause market distortion were able to suffer the consequences of the SCM (Agreement on Subsidies).The author responds to the argument that the Agreement on Subsidies itself mentions that it must be applied subsidiarily to the AA saying that this will only happen when there is a conflict between the SCM and the AA and, in the case of illegal subsidies, those conflicts will not exist after the end of the Peace Clause (Porterfield, 2006).Defending his view, the author reports the case United States - Upland Cotton,[4] in which was applied the SCM Agreement on agricultural subsidies that were given by the U.S..He points out that the case still happened under the Peace Clause, which is especially relevant because it showed that the SCM Agreement is always valid if the measures of support beyond the Total Aggregate Measurement of Support (TAM), easy to occur in the case of USA. The WTO, therefore, not yet faced the question: the case of cotton, one of the few cases related to agricultural products was decided under the clause.

Regarding to tariffs, which are usually seen as permitted under WTO rules, there is the possibility of treating ethanol as a gasoline substitute or, more likely, as substitutes for gasoline additives (oxygenates), like the methyl tert-butyl ether (MTBE). The WTO may consider products that have the same destination to be considered substitutes for each other and therefore prohibited their discrimination. SELIVANOVA (2007) also says that different energy sources, which serve for the same purpose as serving the same need, may be considered interchangeable. So if a particular source of energy serves to heat homes, such as the natural gas and another compete with it for solving this same problem, eg diesel, there can be no discrimination of one over another. However, for this equivalence to occur, it is needed a product to be discriminated in favor of a nationally produced similar, as in the case of a fuel or an oxygenate produced domestically, with lower taxes in face of the foreign good.

The interpretation given to the AA by the WTO panel in Upland Cotton makes clear what many authors have defended: the rules of the Agreement on Subsidies and other general rules in the field of agricultural products are applied, with few exceptions. That is what should be seen as the consensus. The discussion, though, still remains about the exceptions. Ethanol is expressly included within the Agreement on Agriculture, but this fact does not seem to have much relevance, as the WTO and most authors acknowledge that AA is no obstacle to the implementation of the Agreement on Subsidies, with appropriate exceptions, which are not considered market-distort.

Thus, there is no doubt that changes will now occur after the end of the clause and that probably will frighten those countries who saw themselves protected by her. It does not the best law to argue that if the peace clause expires most of the AA will be enforced as before, since even during the its term the WTO applied the SCM. Thus, the Agreement on Subsidies applies to ethanol, with the controversial restrictions imposed by the AA.

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[2] South Africa, Argentina, Australia, Brazil, Canada, Chile, Colombia, Fiji, Indonesia, Malaysia, New Zealand, Paraguay, Philippines, Thailand and Uruguay.

[3] The HS is a set of numbers used to classify all commodities in the world. It is maintained by the World Customs Organization.

[4] United States - Subsidies on Upland Cotton, WT/DS267/AB/R, March 3, 2005.

4. Conclusion

For a definitive conclusion on this subject, it is necessary a detailed study of the programs (incentives and measures) to see if there was actual injury suffered by third parts as a result of the various U.S. incentives and hence the applicability of actions within the WTO. In addition, a study concerning the State level incentives - which are quite significant -, must also be taken into consideration for a possible complaint by Brazil or any other country that has suffered some type trade injury. Finally, the WTO should decide on the expiration of the peace clause.

The AA dealt also with a cap on subsidies. In the case of the USA, the ceiling set by the WTO rules is US$ 19 billion. Koplow (2006) estimates that the amount of subsidies granted to producers of biofuels and especially ethanol was between US$ 5.5 and US$ 7.3 billion and the Farm Bill authorizes an spending of US$ 288 billion in five years. Thus, even assuming that we apply the Agreement on Agriculture after the end of the peace clause, subsidies are not allowed above this ceiling (TAM). As also seen, the U.S. has not indicated to the WTO that ethanol was a product that would be subsidized in 1992.

Thus, whether or not that ethanol is an agricultural product, the Agreement on Subsidies will solve the issue. Although not to all subsidies. It is not illegal in the Agreements the import tax, in the U.S. case, except if we apply the interpretation concerning the substitutability of ethanol with MTBE, for example.

However, some practices are undoubtedly illegal. Some programs, such as the one designed the research and development funds and the Renewable Fuel Standard, do not cause damage to markets and therefore are not actionable. As seen, the main issue to conclude if an incentive can be actionable or is the market distortion in conjunction to the injury. They do not cause damage to other markets and in the case of RFS and actually increase the market share.

Ethanol is therefore one of the technologies that will help the replacement of gasoline by other renewable fuels. It is not the panacea to solve all problems, but it can greatly help in this purpose.

5. Figures

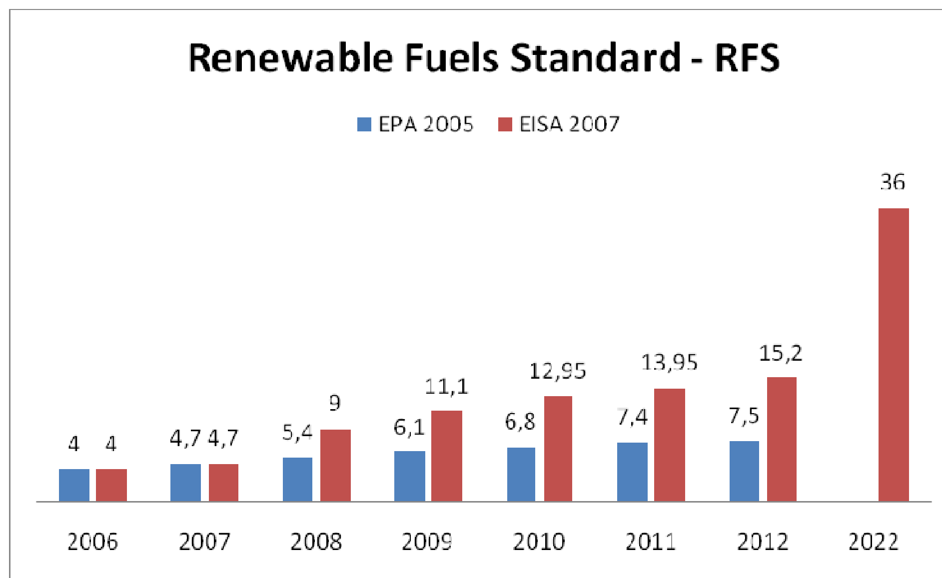

Figure 1.

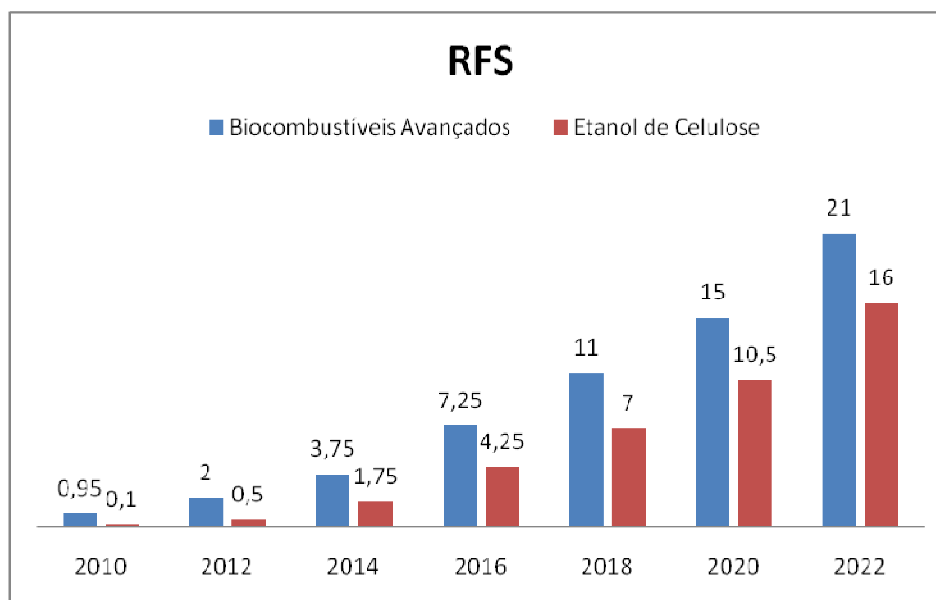

Figure 2.

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