**Fed2CF - Interview Fedecafe Caldas - 12-7-2022**

**Maybe you can start with a small introduction on who you are and what is your role in this Federation.**

Well, my name is [name]. I’m an agronomist engineer by the Caldas University, here in Marisales. I’ve been working 23 years in the coffee growers’ federation. I’ve been an extensionist, providing technical support on coffee plots. I’ve also been an extensions coordinator at the municipalities and now, through the last year and a half, I’ve been a post coffee-harvesting beneficio program coordinator. Working in the benefit of the coffee growers in the municipality of Caldas, here in Caldas, we collected around 60 000 coffee hectares, 60 000 hectares, and around 13 000 coffee growers. That’s more or less the composition of the coffee growing culture in the department. Coffee is a very important actor in the economy and development, not only for this department but for all of the municipalities that do coffee growing. Here there are 27 municipalities and from these 27, 25 grow coffee, meaning the vast majority. Therefore, coffee has had, historically and in the actuality, a very important role in the development of our region.

**And this beneficio program, what do you do in it?**

Let’s say we call coffee beneficio to the coffee transformation process from *cereza*, cherry, right? Cherry bean... To transform it into *pergamino* coffee which is how it is sold and internally stored. Then, that process starting at harvesting, which includes coffee de-pulping, peeling the skin off, all the fermentation, the washing, the drying… All of this process is what is involved in the beneficio. What I do then is, let’s say, is to advice and accompany coffee farmers, and to generate strategies and educational campaigns for them to undergo good beneficio practices to generate coffee of good quality.

**Because each producer does the beneficio process in their own plot?**

Colombia has that particularity and, in each plot, there is an own beneficio installation. In the past years, beneficio centrals have been stablished but they are few. The majority of coffee growers have their own processing facilities in their own plot. Smaller or larger, depending on the production size, but in each plot, there are beneficio facilities, correct.

**What are the challenges there or what are the things that you would like to improve?**

That’s a very important question. Let’s say there are several challenges and several struggles post-harvest. One is to maintain quality. Colombian coffee is a soft coffee. Soft and washed. It has always had a good name, a good reputation on the international level. And that is the main challenge. To preserve that coffee quality. For it to not deteriorate and for each farmer to do their work correctly so that the final coffee, meaning when you prepare a cup, everything is fine and it satisfies. That’s the first challenge. To preserve quality, our coffee’s good name. But from there, other preoccupations and challenges derivate. It is the economical matter. And it is for that coffee to be economically feasible. For the coffee growers, when adding these processes, which are adding value, but for them to have an impact on their pockets. That it, at the end, results on them getting paid better for their coffee, be it at the cooperative or at the coffee’s sale point. And another point which is fundamental, is the environment. Since we work… the Colombian coffee is processed with water, which is a soft washing, with water, it is used in the processes… Then, we are worried for it to be an environmentally healthy process. To take care of the hydric resource. That it won’t contaminate. Those are the challenges. The quality, to conserve it, the economical aspect and the environmental aspect.

**And in which way do you work with the producers on these topics?**

Well, we have, obviously… I work on the technical aspects, which is around the crops, but we also have an area which performs the research, which is cenicafe. Do you know cenicafe?

**Yes, we haven’t talked with them yet.**

But you will go to cenicafe?

**Yes.**

Oh ok. Cenicafe is here in Marisales, on the road… You came by the new one, the double one?

**Yes.**

Then, by an alternative path, it is 30 minutes from here, close, cenicafe is there which does everything related to research. They investigate on everything related on what has to be done for coffee growing, on the crop and on the beneficio area. There is a beneficio and post-harvesting area and they, let’s say, give us everything they develop there. So they give us all of the practices and technologies that have to be taken to the coffee growers, therefore we do the technical part. Meetings, workshops, tours, field days, personalized assistance. We have a large quantity of rural focused methods with which we take to coffee growers all the practices, technologies, the techniques that they have to adopt in order to generate a coffee of a very good quality which maintains and economical process but at the same time conserves nature and the environment.

**And all of these growers are members of the federation? How does this work?**

The coffee growers?

**Yes.**

We have… Let’s say that the federation has… Throughout Colombia, let’s say there are about 500 000 coffee growing families, right? Not all of them are members of the federation but the majority. There are some that well, they don’t want to, or don’t desire it, because the affiliation is voluntary. Then, for a coffee to affiliate to the committee, that doesn’t have a cost, that is free, right? But they have to fulfill some requirements on owning the land, on the extension of the plot, to put it somehow, he must at least have half a hectare of coffee and 1 500 trees. 5 000 square meters and 1 500 coffee trees. And to prove, with a document, that he is the plot’s owner. The owner, the proprietor, the landlord… there are many modes of possession. With that, he can already affilitate to the federation and process his coffee growing identification card, which is free, too. And when you affiliate you enter the whole network of coffee information and can then participate in programs, in projects. When we have coffee elections, this year there are coffee elections, they can elect or be elected to represent the guild. Then, they affiliate. In the case of Calda, as I was saying… 500 000 in Colombia, approximately. In Calda there are 32 000 coffee growing families, approximately, and I would say that approximately 95% are affiliated to the federation. Meaning the vast majority. Then they… independently, since what we provide is a rural focused service or the cooperatives that guarantee purchasing or cenicafe which does research, are public services by being or not being a member of the federation they can request a visit by us and we give it to them, right? There is no problem. But by being affiliated, part of the guild, they get the right to vote, to elect, to be elected. Right? That’s the plus.

**And all of these members sell their product to the federation?**

What happens is… The first part is to affiliate to the federation as such, being coffee growers. What is the area of rural focus. There is another institution, different to us, which are the coffee cooperatives. Another division, another sector. And these cooperatives sectors are the ones that buy the coffee. They buy the coffee. Therefore, if a coffee farmer wants to join a cooperative, he must undergo a different process. Usually, there are many farmers that are associated to the federation and to the cooperatives. And they sell the coffee there, at their purchase points. And they have the possibility to receive additional benefits that are offered by the cooperatives. In the case of Caldas, in Caldas there are 5 cooperatives. There are 5 operating here. I think that at the national level there are 33. Here in Caldas we have 5. Which are, the largest one is, the Marisales cooperative, the Anserma cooperative, the north Caldas cooperative, the Alto Occidente, and the one from Aguadas. They are 5 cooperatives. They cover the whole department.

**The area of residues. Is it something being worked on by the federation?**

Yes, permanently. From a long time ago there has been work on that point. Coffee is a crop that in which particularly, the usable raw material within the fruit is little. There is a lot of residues. Coffee generates a lot of residues. In the cereza, for example, from coffee cereza, we use the 40% and no more. Which is the coffee bean. Because the additional 60% is the peel and the honey, the mucilage. Only 40%. And that bean, when we take it to the threshing when it is dry and then it loses an additional 20% approximately, in what is the *cisco*. So, coffee generates a lot of subproduct. The committee, through cenicafe or the federation through cenicafe, starting at the 60s, 70s, as I remember, there are publications from those times where they were investigation on that topic, for the utilization of these by-products. Particularly the pulp and the mucilage but specially on the pulp. I remember they have been looking in the pulp to produce organic fertilizers by means of composting. Fertilizers by means of worms, vermiculture. There have been projects on the cultivation of edible fungus or of medicinal fungus. There has been work on the area of ethanol production. Methane gas. Recently there was an exposition on the hydrogen production area as a fuel, starting from pulp. There has been work on that. These things are being worked on the side. So, I remember, I wasn’t born yet at the time but I remember seeing publications from the 70s, maybe, starting, where they began with the development of proposals to have a utilization of these materials. Because as Fernando said, mainly in the large plots people get frustrated with that material since it is very bulky, very large, it is very contaminant. Therefore there are these kinds of situations but yeah, we have had developments. What most people do is to transform pulp into organic fertilizers to be reutilized on the coffee plots, on the banana plots, to be used in the coffee nursery. Anyways, it is the main use given to it. I don’t know about it here in Colombia but… Well, here there are some people working with it, with the peel’s dehydration, the pulp, taking care of the process so it won’t get contaminated, to make beverages, with the dried peels. And I was saying that I didn’t get to hear about it in Colombia. I had an experience in Central America, where they do flour with the peels. They dry it and make flour to make cookies, breads, bakery. Not here but I had the experience there. Well, what else?

**Then there is a lot of research on this are but are they projects being implemented yet?**

Let’s say that from the ones that I mentioned, the ones implemented are the fertilizers production by means of compost, composting. There are also people that use vermiculture, too. There was an era, particularly on the 90’s, at the end of the 90’s, starting the 2000’s who worked with the fungi. There are still some people who work with it, with fungi production. Edible ones, being Orellanas, shitake, mushrooms… They work with that but no on the large scale. They are very specific initiatives. The majority of people do what I mentioned, which is producing organic fertilizer with the pulp. Right? From the honey, are you interested at all?

**Yes, it too.**

Ok. With the honey, what people try the most is to not pour it onto water sources, because it is very polluting. It is a filtrating process. They do the so-called green filtering, to avoid for the dense liquid to go to the water sources and pollute. But cenicafe has also investigated the honey, for example, to do things related to fuels, by means of biodigesters, to do gas for the plots themselves. There are some initiatives being worked on for the production of a… it is a product that is added to water and it becomes a beverage. With the coffee honey they are developing something in that area, too. And cenicafe also did research on complementing pigs feeding with coffee honey. Complementing it with the traditional concentrate. There is also research on it, where it helps to complement that diet.

**I’m going to show you some images, on the concept we use, called the biohub, and the idea is that on this side there are many communities that produce biomass, currently not being used, for example the farming and forestry residues, and these are transported into a biorefinery where they can be transformed into different products. This technology produces different products like a bio-fuel, a bio-crude that at the end could be used in the maritime sector. And a biocarbon is produced, too, which can be used again in the plots, for example. What we want to understand is if it is possible to develop a system like this in this area and how could it be developed in a way in which it is also beneficial for this region. And I would like to ask you what do you think of this concept and what benefits this could generate according to you.**

Here, let’s say quickly, a project like this, I think, is very feasible in the area because here we are in the coffee axis. Including Quindio, Risarandas and Caldas have been the traditional axis. You mentioned you would be in Risarandas, Caldas, Quindio… yes?

**Quindio, and Norte del Valle.**

Norte del Valle. That’s the traditional coffee growing zone. Nowadays, more to the south, including Cauca, Huila, Tolima also have a lot of coffee but that is a very new thing. Here coffee is a centuries thing, to put it somehow. So, that has allowed that the coffee institutions to be rooted here. So here we have cenicafe. We have the Manuel Mejia Foundation. Here we have the lyophilized coffee factory. Here we have a large cluster of exporters, of roasters, of threshing companies, of coffee transformation. There a nucleus of institutions at this coffee axis, that can provide raw materials, right? Aside from the coffee plots. Not only the peels but also cisco, coffee honey, the peels themselves… The raw materials could be provided, which is the important thing. And, let’s say that this is a region that has good connectivity on the general term, it is in the middle of the country, so I think that a project like this could work here. On top of that there is the support of cenicafe who knows, like a mention, everything related to coffee farming, the research area. Therefore I think it is a good point. In addition, here I see win-win, right? Win-win. It also is important to brin a, to create a new company on the region, making use of products or by-products that at some point remain non-utilized or generate problems, right? Therefore I think it is very good. I see it as perfectly capable of being developed in the region.

**Do you think that the federation could have a role in this?**

Yes, of course. I would think it would, of course. Obviously, you would have to knock on the right doors. Surely the federation would be interest on a project of this size.

**And what role could it have?**

Well, I think that the federation could be not only on the technical area but also as provider of resources.

**According to you, what could be the obstacles or the challenges? Because you have said there is a lot of research but currently there is no implementation on the large scale. What are the challenges?**

Problems that could present themselves? Well, I can’t think of them. I can’t think of them at this moment that could… Let’s see, Fernando, help me since you’re a coffee grower.

**(Fernando) They have already interviewed me.**

I don’t know. No, no. I don’t know. I really can’t think of any difficulties.

**Any difficulties?**

At this moment, I can’t see them. I don’t know, no.

**Ok. Do you think that it could also have a negative impact or to interrupt something that already exists?**

No, no. Because currently I don’t know of any other company doing that or an industry processing coffee by-product on the large scale. The only thing, might be with cisco, which is a process around the threshing of dry coffee, which is used for coffee drying. Cisco has a large demand on that sector. It goes there. But pulp? I would be something amazing because for a lot of people, pulp handling is a problem. Particularly, as I mentioned, at medium and large plots. So it would be to alleviate this. It would require on coordinating routes and gathering of the material but I think it wouldn’t interrupt or compete with other process. I think it would be something innovative here.

**According with your experience working with producers, do you think that the producers are open towards that?**

Yes, of course. Absolutely. For them it would be something important. I don’t know if in your process it is included to buy from them the material or how would that go, I don’t know, but for the majority it would be really important to avoid the processing of all that material since all of it has a cost for them and requires time from the workday, mainly. If someone comes to pick up that material, takes it away and additionally pays, that would be amazing. Right?

**We would also like to understand the different actors that have a role in the sector and that could have a role in a new value chain. And we want to understand what is their position and their relationships. Here we have a grid with different actors and their position regarding power they might have in the sector, in a new value chain, and the interest they might have in a new interest value chain. If it is high or low and if the power is high or low. I would like to ask you what do you think about these actors and their positions. Are they ok or maybe we should change them somewhere else?**

The government. National power, high. Municipalities. Regional governments. Technology providers. Biorefineries. Fedecafe. Cooperatives. I would put cenicafe here.

**At the same place as…**

With Fedecafé. With cooperatives, here. In tis quadramnt.

**With high power and high interest.**

Yes. Cenicafé here.

**Why?**

Come again?

**And why is that?**

Cenicafé is also a part of fedecafé, right? It is here, it is an internal part, within fedecafé. They do research. They are interested for there to be different types of proposals and to maybe retake things that have been previously been developed within cenicafe. To validate all of the research there is. That’s why I think they should be at this level. The academy, that is correct. *Cafetaleros* (coffee growers). Here we call them *caficultores.* But it is correct. In Center America they use this term, *cafetaleros*.

**What do you think about their position?**

Yes. High interest, correct. But let say they are low in power. High interest, low interest. No, it is ok. I see it as correct. The academy… Yes, it too. Biomass collectors, transport. No, I see it as correctly. What I don’t know is… Government is in high interest? No, high power, low interest. Yes. It is correct. We’ll see what the new government says.

**You think they don’t have much interest?**

We’ll see. The thing is governments have been away from the agro- sector, from the rural sector. With coffee we could say there is a little more approaching and the administrative structure of the federation makes the approach more. But sometimes it is not easy to obtain resources or their will. But they obviously have high power so hopefully that interest manifests as them trying to bet on these initiatives, right?

**And how is it with the regional government?**

At least in Caldas, from government, there is high empathy. Let’ say, because it is a coffee growing department, let’s say, usually year by year we have agreements and projects.

Actually, this morning I was in a meeting downtown, at downtown’s office, because government offered us an important amount of money, we are talking about 10 000 million pesos, to create an agreement. So they offer us resources to do something for coffee farming. Government, today, is our friend. The thing is that government change, it is a complex thing. But historically, let’s say, both Caldas government and Marisales mayor’s office is very close to the coffee grower’s federation. And we do agreements and we do things together. I see it ok.

**Are there actors missing that are important but…**

Maybe. Cooperatives, academy, platforms, collectors… I don’t know if there are other type of industries related to coffee that generate some other type of bioproducts. Are they there somewhere?

**No.**

Ok. They might be, maybe not just pulp but aside of pulp there could be other by-products, other type of industries linked to coffee that…

**Like roasters?**

Like roasters, lyophilizers I’m sure they might also generate by-products. Threshers, all this kind of… Around here there is a plant that decaffeinates coffee. They all must generate their own by-products.

**And where would you put them in this grid?**

I would put it in high interest. I would put it here, in the middle. Here, like this.

**And the associations?**

The cooperatives? It would be that. The cooperatives are from the farmers, from themselves. They would go here. I think it is ok, coffee growers’ cooperatives.

**Thank you very much, those were my questions for now.**

That’s it?

**(Different speaker) Sorry, I didn’t want to because the interviews are personal but I got a question when Susan asked a question. When she said why are there no more interested industries? I interpreted as… The same that you have lived, since I was young… Actually, an aunt of me who studied at the technological (university) many years ago worked on the development of pig feeding using coffee pulp. And we do aromáticas, and there is the honey that you mentioned is being used to make beverages, and the worms, the mushroom cultivation. Why has any of these things progressed? What’s the limitation for some of these, any of these, work? Why is there no a “Oh man, there is no more pulp issue!”?**

I think that there are many simultaneous issues. The technology and development are there, they exist. It might be that we are missing the entrepreneurship, the person who wants to do it, and maybe the institutional support in order for that company to emerge. Because what you said is correct. The initiative starts and then it gets cold. And it is one or two, very little.

**I don’t know if it is that the things that come from the pulp have not been of good quality. If it is not a good fertilizer, or a good food, or a good beverage. Because I see that we test and test… I thought that with the fungi it was going to be a…**

Of course, but the one thing there is that in Colombia fungi consumption is very low. People don’t eat much fungi. I like them, but I barely ever buy them. I don’t know why; I don’t have the habit. So, maybe, the issue is that those fungi is an exotic thing in the country. I know they are known in the world but not here. Therefore, the commercialization part has also influenced a lot by not having who to sell to. You see sometimes at fairs and events as such they bring some fungi and they sell it and all, but at the large level, it is not seen. It is not seen. It has not been accomplished and it is sad. The same with gas production. I remember a long time ago it was worked and there was a strong push in the production using bio digesters. It was a period of time when effort was put, and effort was put but people would go back and let the initiatives fall through.

**But then that would have to be that the production was not efficient enough to produce gas. I never installed a bio digester.**

You never used it?

**I never used it but I witnessed many plots that started with it and it fell through. But one thinks that if it was good people would have them all throughout the plots.**

No. It is good and I witnessed it working. The things is that, nowadays, the workforce is a complex topic. Bio digesters have to undergo maintenance. Instead for people, the gas truck is there, I only have to connect it and I’m done. Another thing is having to wash the yards, directing the honey… I’ve seen that the thing around work… People’s culture has changed a lot. And not only there. Many years ago, throughout all plots one would see crop gardens. So one would pick up a tomato, a lettuce, a cabbage for self-consumption. And now people is thinking “The tomato is already being sold, why would I complicate myself?” and then they buy the tomatoe. Therefore it is a very cultural thing because these initiatives imply work, efforts, workdays. So, maybe, that is another of the reasons behind that. It might be. It might be.

**Cool. Thank you very much.**

What else?

**Is this the same interview you did to Julio?**

**No, it is different.**