

Quebradas, August 10th, 2008.

Dear Friends,

Well, we are still here, even after events such as “Huracán Alma”, which in spite of its peaceful name (“Alma” means “Soul”) was pretty violent, and came at a most inconvenient time, because we needed to get our new machinery from San José precisely at the moment it hit, and the main road was blocked with impressive landslides for over two weeks. The arrival of the machinery had been seriously delayed by a whole series of incredible bureaucratic government requirements, and a very inefficient customs agent. So, we had to pay an exceedingly expensive lorry to drive all the way round via the Pacific coast in order to get the “reaper-binder” here in time to harvest the seeds, which, once they are mature, very quickly fall off onto the ground if not harvested. And the grass only flowers once a year, so it was a “now or never” situation.

Here are some photos of the devastation caused by the hurricane. Here, hurricanes usually do not come with much wind, but torrential rainfall, and all the rivers, and even small streams, become roaring brown torrents carrying huge boulders and everything else that gets in their way. It is terrifying to see and hear.... Here, where my house is on the other side of a small bridge from the rest of the world, it was very scary to say the least, but at least we did not lose much really. Many families lost their homes and their livelihoods, although thankfully no lives were lost. This is the second hurricane we have had since I have lived here. The previous one was in 1996 (hurricane César), which was possibly worse than this one. Many of the older people have seen many hurricanes, and suffer remembering all the tragedies they have caused.



1. People waiting for drinking water.
2. Where my cocoa plantation used to be.
3. One of the many landslides on the main road to San José.
4. River washing away houses, trees....
5. and bridges.
6. Electricity, phone and water supply to my house being restored after the river plus large trees beating against the bridge at the height of the flood had broken them off.

So, at long last, we got to try out the machine I have been dreaming about for years. The idea is to be able to harvest larger quantities of seed, and also to buy seed from farmers who harvest by hand, which will enable us to increase total production. The demand for seed of this type of grass has increased enormously over the last few years, and this might enable us to enter the market with a product which not only is excellent in quality but also sufficient in quantity. This has always been our weak point, not being able to produce enough seed to meet the demand of larger companies, because we were dependent on hand-harvested seed.

Hand harvesting is easy for one farmer to manage, but not for us. Often we were working on ten different farms at the same time, and to harvest each hectare manually about 200 man-hours are needed. Labour here costs about \$1.50 per hour, so in fact this is not expensive, considering that yields of up to 400kg/hectare can be obtained, and the seed can be sold for at least \$15/kg, so this is an excellent option for a small farmer to get some additional income. However, for us to manage a reasonable area we had to work on too many farms all at the same time. We harvested manually during many years and the experience is very valuable, because we have been able to obtain very high seed quality. However, it became impossible to manage such a large number of labourers, so we decided to look for appropriate machinery in order to be able to harvest larger areas, although we will continue buying seed from small farmers who harvest manually. Here are some photos of last year's manual and this year's mechanised harvest, which help to illustrate the implications of finding appropriate machinery.



The reaper-binder cuts and forms “stooks”, and then supposedly binds them with twine. We actually never got it to bind the stooks as it should have done, but at least it gathers up the seed heads in bunches, which makes them easier to collect than if it just threw them down randomly on the ground, as an ordinary scythe cutter bar does. However, even though we managed to harvest some seed, the yield was not good. Next year we will need to find some more productive plots, or rejuvenate these ones.

As well as seed harvesting, we have continued to treat seeds for the local agricultural materials company “El Colono”, who pay us for this service. We have treated 60,000kg of seed this year and can do 2400kg in one day. This seems amazing to us, who used to think that 360kg in one day was a lot of seed. The seed is germinating well and El Colono seems to be pleased with the results. However, they have sold much less seed than they expected. The economic situation here for farmers is very difficult, and they cannot afford to buy the seeds, it seems, or at least, they tend to

put off planting new pastures when they have other more urgent expenses. In fact, planting new pastures is a good way of reducing those other expenses. Many farmers feed their cattle on imported feed concentrates. This seems illogical to us, who can see the benefits of this relatively simple technology, but it is often difficult to see why farmers do not adopt new technologies. Probably a combination of lack of good information, distrust, aversion to risk and a cultural tendency to avoid even medium term planning is the explanation.



1. Response of seeds of *Brachiaria dictyoneura* to treatment (treated seeds in front, untreated seeds behind, seven days after planting). The untreated seeds are “dormant” and the treatment “Speedygerm” (which I invented) removes dormancy.
2. Patiently counting!!
3. Washing seeds.
4. Drying seeds. Each tray contains 300kg of seed which is dried by warm air blowing up from below.

As you can see from the photos, we have quite a few women working for us. When the work is not too strenuous, we try to give it to women. People constantly arrive at Santa Juana asking for work. It is quite a job training them and keeping track of what they do, and do not, do. Each lot of seeds must be numbered, weighed, sampled, tested, packed and labelled, and most of these people have very little education, so constant supervision is required. It is a relief that the season for selling seed will soon be over and we can give it a rest for a while, although we have plenty of other things to do...

For example, for Marco’s legume leaf meal project, we have selected a variety of cowpea from a collection sent to us by CIAT, and now we are about to harvest it and dry it and then grind it and pellet it with the new machines we have imported from England, to produce a new form of concentrate for animal feed.. Here is a photo taken yesterday of the crop sown only 4 weeks ago. It is just over a year since we harvested the last crop of the same legume, but I had an accident (fell off a small bridge on the farm where it was growing) and broke my shoulder. For this and other reasons, the project got delayed till now, but we hope shortly to produce the first sack of pellets.



All this machinery and construction work has cost us a lot of money and we are pleased that we have recently had several offers from people interested in investing in this project. Previously we have tried and failed to get investors, but it seems that with the current world economic situation, people are now more interested in investing in small companies rather than leaving their money in the bank. However, this has precipitated an identity crisis for us. Are we an NGO or are we a business? Possibly the answer is a mixture of the two. We are an NGO which promotes the formation of businesses. In order to do that, we have to have our own businesses too. It seems to us that this is possible, but that it will make the accounts rather complicated... However, we are currently in the process of separating ourselves into a mother organisation (non-profit-making) with several profit-making offspring, who will contribute a percentage of their profits to permit their mother organisation to continue her activities and to pay for all the research and initial investment which went into their development. We still have to see if the potential investors will agree with this proposal.

Another good bit of news is that finally after all these years and solicitors' fees, Andrei of Papalotla signed the modified contract for use of my "Speedygerm" patent, which now leaves me free to use the method myself for non-hybrid seed. Previously Papalotla had insisted I had given them world-wide exclusivity, which I had not, so until we reached an agreement on this point, this made it impossible for me to negotiate with other companies. I am so pleased that we finally managed to come to an amicable agreement, all due to a solicitor who just appeared here in Quebradas. He was on holiday and saw our sign and was curious to know what we are doing, so he just dropped in. When I asked him what he did for a living, he said simply "I'm a patent attorney". This was just like a ray of light from heaven, because I had sought and tried out so many expensive attorneys and got absolutely nowhere over the previous five years. Joe (the attorney) managed somehow to understand the extremely complex situation and to help us find the way to satisfy the requirements of both parts. He recommended a book to me ("Getting to Yes", by Roger Fisher and others) which explains this negotiating method. It is a book which I feel everyone should read, because it is relevant for any situation, from family squabbles to world wars. Basically it teaches how to listen constructively to the needs of the other side. Sounds simple, but most problems in the world are due to not listening properly, I think. So here we are, with our signed contract...



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