

This was my text, however, I was asked to cover slightly different areas, so I extemporized slightly from this text.

TITLE SLIDE.

A REVOLUTION IN DECORTICATION

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Good Afternoon.

I am here to discuss the solution to the Challenge of the Hemp Industry.

We have worked relentlessly on this Challenge since I first started work in the hemp Industry in 1994.

To many in the industry, I am a heretic. I don't ret!

One of my ancestors was transported on a First Fleet convict ship to Australia in 1788 to settle Australia for the specific purpose of growing hemp for the British Navy.

That young woman, Ellen Wainwright, was a pioneer in that original Australian hemp industry. I am her direct descendant.

We are all here together because we care about the hemp industry. We have been passionate. We have all worked hard. We have had obstacles.

Yet here we are today to stop the hemp industry stagnating.

We are all here to try to give it new life.

The hemp industry is very ancient; it is steeped in tradition. It is only natural that such traditions, such as retting are hard to give up.

But I am a both a Revolutionary and a Heretic.

New life for the hemp industry means new ideas and then it is expected that such radical new ideas should have a long period of acceptance.

Our New Idea was proven of 14 years ago.

Hemp Industry Leaders such as Stephano Ammaduci, John Hobson, Don Wirtshafter have witnessed it during its development phases over many years.

SO NOW IS THE TIME FOR ACCEPTANCE.

These new ideas embodied in this new technology will make the hemp industry relevant in modern Industry and in modern agriculture.

We need to justify our passion for hemp. For me it is in my genes!

I hope that I can rekindle by providing new technology and through the new opportunities this technology provides, to motivate action, creativity to expand the industry in new directions and find a new relationship and relevance to modern manufacturing and commerce, through composite products, textile products and building products.

The initial passion for hemp may have cooled a little because of the struggle to have hemp made legal to grow wherever we can, and find markets for it.

That passion has been cooled when we have grown beautiful crops and been unable to process them.

That passion has cooled because the processing available in Europe has been centralised, costly and has damaged the fibre so much that the dreams of turning it into high value textiles have been dashed.

That passion has cooled in other parts of the world where there is NO processing available and the multi-million dollar cost of setting up European style decortication with retting is out of the question. So enthusiasm dies and passion cools.

The fact that those big machines make a fibre that cannot be used in Textiles kills the passion because the introduction most people have had to Hemp has been through hemp clothing.

I am told by farmers in eastern Europe that the hemp industry is a closed shop limited to a few who can send their stems to the big mills.

I am told by Canadian Farmers that they must burn their stem because they cannot process it; so they have only a seed industry, a farm subsidy and they miss out on the hurd and the fibre parts of the industry.

I am told by Eastern European farmers that they can grow any amount. It is a traditional crop and they still have the knowhow and the laws are allowing it.

But they cant afford to transport it and there is no possibility of raising money to build huge European style mills near their farms.

The great dream of a European hemp textile industry as been still born.

Where is it now? How can we maintain the passion?

Hemp hurd is used as animal bedding and the fibre is used in car parts.

We have all had sudden demand for hemp hurd from builders. That has been a tonic to the industry!

There is little talk of a large hemp textile industry. That dream is almost gone except for a few long line spinners keeping up the linen tradition.

In fact, most of the textile mills in Europe have closed and the work shifted to China - just as it has moved to China from Australia.

Yet here we are looking for new ideas and new ways of utilising the fibre and hurd. Many of these ideas have great potential.

The dead end that you have reached for the fibre and hurd is that they need to be separate to be useful.

The separation has been done by retting which damages both fibre and hurd.

It is costly, time consuming and it RUINS the fibre.

Then the decortication methods smash the fibre so it has lost its cohesion and its form. It cannot be used in textiles.

The main challenge of the hemp industry remains. It is that hemp needs to be decorticated.

The Hurd MUST BE taken from the Fibre without damaging the fibre.

So you must get rid of Retting.

You must NOT Hammer mill the fibre.

THE FIBRE MUST BE IN IT BEST CONDITION.

WITH OUR SYSTEM

THERE IS NO RETTING.

THERE IS NO HAMMER MILL

HEMP PRESENTATION FOR GERMANY.

THE DECORTICATION IS DONE ON THE FARM DURING HARVEST.

IS THIS HERESY OR IS IT REVOLUTION?

OR IS IT THE BREAKTHROUGH WE NEED TO MODERNIZE AND LIBERATE
THE INDUSTRY?

D8 SLIDE ONE



This machine needs no retting

and does not DEGRADE YOUR fibre.

This machine is a tool which can give the hemp industry new life and a multitude of new directions.

With this machine there is no need for a farmer to bale his crop and to send it away for decortication.

With this machine a farmer can harvest and decorticate hemp and make it into hurd and valuable unretted and undamaged fibre right on HIS farm.

This little machine is the latest version of our decorticator. It is called the D8 because it is our eighth and most powerful iteration of our decorticator technology for separating fibre and hurd from unretted hemp.

That unretted hemp can be fresh and green or hard and dry and this machine will decorticate it at high speed.

We have had this version of the decorticator for some time. Our challenge has been to be able to feed it at the high speed at which it can work.

SLIDE TWO. STATIC D8



This is a version called the Static D8. It is a D8 as before. But here it is mounted on a stand.

That stand is on a trailer.

This machine can be taken to a field and put to work as fast as the operators can feed it.

It is ideal for those who have only small trial crops and are learning how to grow it, yet want to do something with it.

It is always a delight to grow a good dense hemp crop. It has been done countless times by people with passion for the plant - like us.

Yet, because there has been no way of decorticating the splendid crop they have grown, they have been unable to do anything with it.

IT HAS NO VALUE.

With this small system and a well grown crop, they can make 7 tonnes of hurd and 3 tonnes of fibre per hectare.

That is, YOU can take something which has no use and no value and make it into two valuable commodities.

FIBRE
HURD

The possibility is realised.

Opportunities are created.

A small crop can make something that can be used as a marketing tool to develop local industrial opportunity to justify big and even huge crops.

The fibre can be used to replace fibreglass, or it can be further processed to make textiles or paper.

The hurd can be sold to the local builder to make hempcrete houses.

Right on the farm, even a small crop can be put through this machine and make a hemp crop valuable - right on the farm.

What value is the fibre at the farm gate?

What value has the hurd at the farm gate?

Whatever that value is, it is far more than the ZERO value of hemp that has not been decorticated.

The virgin undamaged hemp fibre that this machine creates provides a real starting point for local industry to develop around it, around, the farm, around the town....

What if that superior fibre were sold to a geotextiles company for as little as €1,000 a tonne? what if more?

Perhaps it is bought by a local weaver group making traditional textiles for themselves and for the tourists.

Perhaps they can find a market in a town or a city which uses it for composite products like molded furniture or even light weight electric car bodies.

There is no telling what creativity would happen if the material were right there grown locally.

What if the hurd were sold for €300 a tonne or more to the local builder?

A small crop of 10 Hectares, would make €30,000 for fibre and €21,000 for the hurd.

That is €51,000 of value from 10 Hectares for an enterprising farmer who has sought out his market and developed it because he has used the Static D8 to make useful product on his farm.

Perhaps several small farmers have formed a Co-Op to buy a machine and pool their labour. The supply grows and the local industry can also grow to use it. The farmers have a valuable cash crop and commodity they make themselves.

SLIDE THREE. Fibre Hank



HEMP PRESENTATION FOR GERMANY.

THIS IS A SAMPLE OF THE FIBRE WE PROCESSED IN A STATIC D8 IN NEW ZEALAND A FEW WEEKS AGO. IT CAME FROM A DUAL CROP.

OUR CHINESE FIBRE BUYERS DECLARED IT TO BE AN EXCELLENT FIBRE FOR BOTH TEXTILES AND COMPOSITES.

THE LOCAL WAIKATO UNIVERSITY COMPOSITE SPECIALISTS DECLARED IT THE BASIS FOR A RANGE OF COMPOSITE PRODUCTS AND NEW INDUSTRIES IN NEW ZEALAND BECAUSE IT IS EXTREMELY STRONG AND DURABLE BEING UNDAMAGED: AS GOOD AS IF IT HAD BEEN HAND PEELED.

THE CHAIRMAN OF THE NZ CAMPAIGN FOR WOOL DECLARED IT AN IDEAL FIBRE FOR BLENDING WITH WOOL IN APPAREL, CARPET AND FURNISHINGS.

A LOCAL NZ COMPOSITE COMPANY DEVELOPING INSULATION BATTS DECLARED IT IDEAL FOR MAKING INSULATION MATERIAL AND AS A REPLACEMENT FOR FIBREGLASS IN MOST COMPOSITE PRODUCTS.

WHAT IS TRUE IN NEW ZEALAND IS CERTAINLY TRUE THROUGHOUT THE REGIONS OF EUROPE.

SLIDE FOUR CUTTER.



EVEN THE FASTEST HAND FEEDING WE HAVE DEVISED IN NZ, AUSTRALIA AND IN CHINA HAS NOT BEEN ABLE TO KEEP UP WITH THE PROCESSING SPEED OF THE D8 ON GREEN FRESH HEMP.

THE D8 HAS ALWAYS BEEN INTENDED TO BE INSIDE A HARVESTING SYSTEM.

THAT WAS OUR INITIAL CONCEPT TO WHICH WE HAVE WORKED SINCE 1994.

WE HAVE DEVISED MANY WAYS OF APPLYING IT TO A STANDING HEMP CROP.

THE BEST WAY WE HAVE SO FAR DEVISED HAS THIS TYPE OF DOUBLE CUTTER AS THE LEADING PART.

HEMP PRESENTATION FOR GERMANY.

IN A GREEN FIBRE CROP, IT WINDROWS THE LEAVES AND SEPARATELY WINDROWS THE STEM.

IN A DUAL CROP IT WINDROWS THE SEED HEADS AND, WINDROWS THE STEM.

THEN THE HD3 TAKES OVER AND DOES ITS MAGIC!

SLIDE 5. HD3



THIS IS THE WAY WE HAVE DEVISED TO BRING THE D8 TO WORK ON THE FIELD.

THE D8 IS CARRIED ON THIS PLATFORM TOWED BY A TRACTOR.

THE PICK UP WILL COLLECT THE STEMS OFF THE GROUND AND FEED THE D8.

THIS IS THE "PROOF OF CONCEPT" MACHINE DEVISED BY OUR TEAM OF AGRICULTURAL AND MECHANICAL ENGINEERS, HEMP GROWERS, BUILDERS, AND TEXTILE SPECIALISTS.

THIS 'PROOF OF CONCEPT MACHINE' WAS USED ON A SHORT SEED CROP IN AUSTRALIA. IT WAS THE TYPE OF CROP USUALLY DISCARDED AND BURNT ONCE THE SEED WAS TAKEN.

IT WAS ONLY ABOUT A METRE TALL AND YIELDED NEARLY A TONNE OF SEED PER HECTARE.

YET WE PROCESSED THE STEMS AND RECOVERED A LOT OF HURD AND A SURPRISING AMOUNT OF FIBRE. THE HURD WENT INTO THE RED BIN.

IT IS TO BE USED IN HEMPCRETE

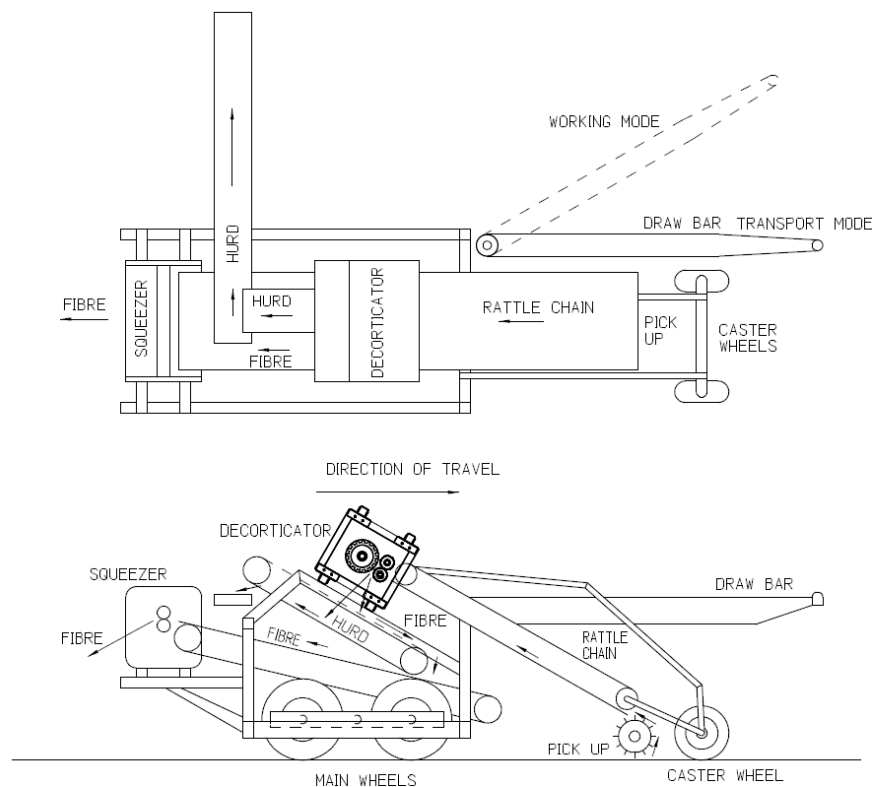
BECAUSE IT WAS SO DRY IN ARID AUSTRALIA THE FIBRE WAS DROPPED ON THE GROUND FROM WHERE IT WAS COLLECTED BY A STANDARD JOHN DEERE BALER.

SOME OF THE FIBRE WAS MIXED WITH POLYPROPYLENE TO MAKE A SAMPLE COMPOSITE. THE RESEARCHER DECLARED THAT COMPOSITE SO STRONG THAT IT COULD BE USED TO MAKE CAR BODIES.

SOME OF THE FIBRE WAS DEGUMMED AND MADE A FIBRE THAT COULD BE SPUN AND WOVEN INTO TEXTILES.

THE CREW WHO MADE THIS, HAS STARTED MAKING THE PRODUCTION MODEL WITH MANY IMPROVEMENTS DEVISED DURING THE HIGHLY IMPRESSIVE RUNNING OF THIS CONCEPT PROVING MACHINE.

SLIDE 6 HD3 SCHEMATA



THIS IS A SCHEMATIC OF THE PRODUCTION MACHINE WE ARE MAKING.

WE CALL IT THE HD3 BECAUSE IT IS THE THIRD AND MOST SUCCESSFUL HARVESTING DECORTICATOR WE HAVE MADE.

IT IS SO SUCCESSFUL THAT WE ARE READY TO MASS PRODUCE THEM IN AUSTRALIA

AND HUNGARY.

AND THE USA TO PROCESS KENAF IN THE USA AND HEMP IN CANADA.

IN THIS NEW VERSION OF THE HD3 MACHINE THE HURD WILL BE CONVEYED OFF INTO A CHASER.

THE GREEN FRESH SKIN WILL BE SEMI-DEGUMMED AND TAKEN OUT
THE BACK

INTO A TRAILER.

THE FIBRE WILL BE DRIED IN A FIELD DRYER

THIS MACHINE WILL FOLLOW THE CUTTER FOR GREEN FRESH
PROCESSING.

IF DRY PRODUCT IS REQUIRED, THE STEMS CAN BE LEFT TO DRY IN
THE FIELD.

THE HD3 WILL PROCESS THE DRY STEM INTO DRY FIBRE AND DRY
HURD.

THE TRIALS OF THE PROOF OF CONCEPT MACHINE INDICATE THAT
THIS MACHINE WILL

OPERATE AT APPROXIMATELY 1 HECTARE PER HOUR ON FRESH GREEN
STEMS AND

SLOWER ON DRY STEMS.

DURING THE RECENT VISIT BY OUR CHINESE ASSOCIATES, THEY HAVE
DECLARED THAT

THIS MACHINE WILL MAKE IT POSSIBLE TO PRODUCE A HEMP TEXTILE
FIBRE THAT

CAN BE SPUN AND WOVEN AND KNITTED IN STANDARD COTTON
MACHINES FOR A

SIMILAR PRODUCTION COST TO THAT OF COTTON.

NOW I ASK YOU TO VISUALISE A NEAR FUTURE. IT COULD BE NEXT YEAR,

IN THAT FUTURE, HEMP PRODUCTION THROUGHOUT EUROPE, IS DECORTICATED ON THE FARM BY THESE MACHINES.

THE FIBRE CAN BE USED IN A WHOLE RANGE OF TEXTILES

SO NEW A NEW HEMP TEXTILE INDUSTRY IS CREATED AND DEVELOPED THROUGHOUT EUROPE.

INSTEAD OF IMPORTING COTTON FIBRE FROM FAR AWAY,

THE NEW TEXTILE INDUSTRY MILLS ARE ADDING VALUE TO FIBRE GROWN NEARBY AND SELLING CLOTH AND CLOTHING TO THE LOCAL COMMUNITY AND LARGE MARKETS FURTHER AWAY.

INSTEAD OF IMPORTING FIBREGLASS, FACTORIES AND CAR MAKERS ARE USING LOCALLY GROWN STRONG HEMP FIBRE TO MAKE THEIR PRODUCTS.

INSTEAD OF BUILDERS BRINGING HEMP LONG DISTANCES AT GREAT COST FROM CENTRALISED DECORTICATION MILLS, THEY CAN BUY THEIR HURD FOR HEMPCRETE FROM THE LOCAL FARMER.

IMAGINE MILLS FOR TEXTILES, PAPER, COMPOSITE PRODUCTS ETC. THROUGHOUT THE LAND USING LOCALLY GROWN HEMP FIBRE AND HURD AND PAYING THE FARMER A GOOD MARKET PRICE FOR A SUPERIOR FIBRE.

IMAGING THE DIFFERENCE IT WILL MAKE TO THE FARMERS AND RURAL VILLAGES IF THE VALUE IS ADDED TO THE PRODUCT BEFORE IT LEAVES THE FARM GATE.

YOU ALL WILL HAVE DESERVED TO HAVE KEPT THE FAITH YOU HAVE HAD IN HEMP ALL THIS TIME.

IN THIS FUTURE - AS SOON AS NEXT YEAR - YOU WILL LOOK AT THIS INDUSTRY AND HAVE A SMILE OF SATISFACTION BECAUSE YOU HAVE KEPT THE FAITH AND KEPT THE PASSION.

YOUR HOPE FOR A PROCESSING MIRACLE AND YOUR PASSION FOR THIS EXTRAORDINARY PLANT HAS BEEN REWARDED

AND YOU WILL SEE THE BENEFIT OF IT AS YOUR RURAL SECTORS ONCE AGAIN ACHIEVE THEIR RIGHTFUL PLACE IN THE ECONOMY.

AS THE FARMS PROVIDE THIS FIBRE AS WELL AS BEING THE ENGINE OF THE FOOD ECONOMY, THEY ARE A VITAL PART OF THE INDUSTRIAL ECONOMY.

I LEAVE YOU WITH THIS QUOTE FROM DR. WARWICK RAVERTY ONCE THE HEAD PAPER MAKING SCIENTIST OF AMCOR IN AUSTRALIA

AND MORE RECENTLY THE HEAD SCIENTIST OF THE FORESTRY DIVISION OF THE AUSTRALIAN CSIRO, OUR PREMIER NATIONAL RESEARCH INSTITUTE.

“WHEN YOU CAN DECORTICATE ON THE FARM AND CREATE COMMODITIES OF SUCH VALUE TO SO MANY INDUSTRIES, YOU WILL GIVE THE OPPORTUNITY FOR THE CREATION OF MANY TOWN BASED ENTERPRISES AND THUS:

- “YOU WILL CHANGE THE ENGINE OF THE ECONOMY FROM THE OIL WELL, BACK TO THE FARM GATE.”

HEMP PRESENTATION FOR GERMANY.

IF YOU CAN SHARE THAT VISION, AND YOU HAVE THIS MACHINE, YOU
CAN BE PASSIONATE ABOUT HEMP ALL OVER AGAIN

JUST AS YOU WERE WHEN ALL OF US WERE SEDUCED TO LOVE IT!

THANK YOU.