THE Tow and Fert TIMES

TOW AND FERT BY METALFORM

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FERTILISER, 'FARTS' AND FUMES.

Taxes and regulations continue to take their toll on the farming community. Yet change and innovation are continuing to transform farming profitability and environmental outcomes.

Most of us know the story of Chicken Little. It tells the tale of a young chicken who, whilst sitting under an oak tree has an acorn drop on their head. Not realising the bump on their head is an acorn falling, Chicken Little decides that "the sky is falling!" and proceeds to tell all their friends that the end of the world is nigh!

This classic English fable has been told countless times and applied to countless situations over the years. And there are days when this fable seems to be true with what is happening in the agriculture sector. At nearly every turn, newspapers, websites, television channels et al. are reporting on the taxes and regulations being forced on farmers. It can feel like 'the sky is falling' in on one of the most important sectors of New Zealand's economy.

For the public at large it would seem that the agricultural sector are simply sitting idly by and doing nothing to improve their practices and businesses. Getting consumed in the headlines and subsequent public sentiment can lead many farmers to wonder why they are bothering to try and improve their farming practices and businesses at all.

The media tend be quick to pick up on a sensationalised story letting the good stories, those that show progress, learning, changes, and positive business practices simply sink to the bottom of the pit, never to be seen in the wider media.

Some of the hot button issues facing farmers and covered more recently in the media are given plenty of airtime without any, or very little, telling of the 'other side of the story'. This side of the story is often one of innovation, positivity, and a willingness by farmers to grow and move with the times, all the while improving their businesses and production. Indeed, in our travels around New Zealand, Australia and further afield, we hear the 'other side of the story' regularly. It is a story of resilience, tenacity, passion, progress, and business acumen.

Fertiliser. Regulations have been coming for some time and lots of progress has been made.

If you have followed our articles in this tabloid over the last 3-4 years you will know that when the Labour Government came to power, they clearly flagged that they would be looking at regulation to try and improve the environmental impacts of intensive dairy farming. In fact, David Parker, Minister for the Environment made it quite clear that Dairy Farming was in the governments cross hairs when he said

In our first ever edition of the Tow and Fert Times we wrote about the pending possibility of farm input regulation.

"[improving waterways] won't be done through a raw cap on cow numbers; it will be done on nutrient limits, the amount of nutrient that can be lost from a farm to a waterway, because it is not just a dairy cow issue."
(Q&A July 2018)

Fast forward to today and fertiliser efficiency is very much at the forefront of farmers minds. As the 190 units N/ha have kicked in the fertiliser companies have started to look at liquid fertiliser as an option to sell to farmers. Evidence of this can be seen through recent additions of liquid N products to their line-up. Further, more companies now offer liquid 'N' products from natural resources such as Fish Fertiliser, or supplementary Seaweeds.

Not only does the increase in liquid fertilisers speak to the effectiveness of foliar applied fertiliser, a message, that is often overlooked, is that the application of fertiliser in a liquid form to the leaf of the plant means that very little fertiliser is applied to the soil. Fertiliser applied to the leaf is used quickly and efficiently by the plant leaving little to none entering the soil and leeching below the root zone into the ground water.

Machines such as the Tow and Fert range, offer farmers additional flexibility with the application of fertiliser enabling complex 'mixes' or 'slurries' made up of dissolvable solid fertilisers, ultra-fine particle (UFP) fertilisers, natural biological fertilisers, seaweeds, and other products to be applied to pasture and crops in a liquid form. This has significantly reduced the fertiliser burden on the environment on these farms and, in many cases, increased the amount of, and quality of, the grass and crops being grown. Further, the reduction in the need for fertiliser has led to significant cost savings.

For over 50 years farmers and growers have been sold the idea that to grow more grass you need to 'put more on'. An entire eco-system of business grew up around this idea. Disruptors are now proving that this 'more on' approach is not necessary. More grass is being grown with less fertiliser; healthier crops are being grown with less fertiliser. And more milk is being produced as well.

Overall, the impact on the environment has been reduced significantly, cost savings are made, and businesses have become more profitable.

Myrtle on the steps of Parliament in 2003 when Shane Ardern, National MP let a protest to parliament over the prosed 'Fart Tax'

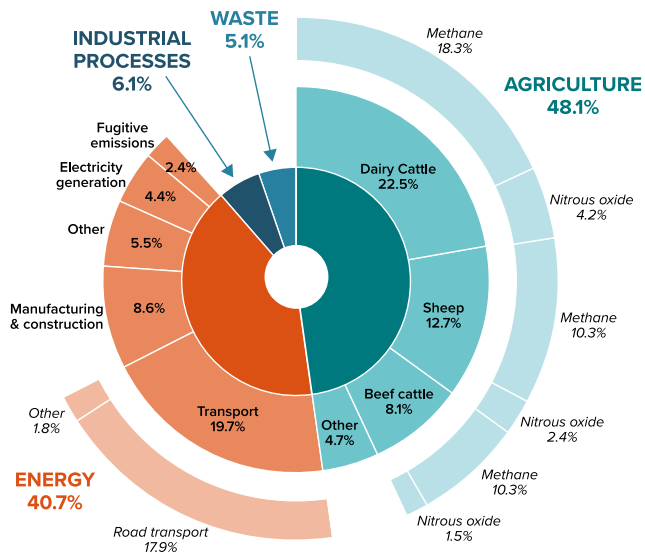
Farts. Greenhouse gasses produced by ruminant animals such as cows, sheep, and deer.

Who can forget the sight of 'Myrtle' the tractor driving up the steps of parliament in 2003 to protest the then labour government's plan to impose a 'fart tax' on farmers? Nearly 20 years on and this 'tax' has morphed by way of the Climate Change Response (Zero Carbon) Amendment bill.

The mere utterance of those words, 'The Climate Change Response (Zero Carbon) Amendment Bill' will no doubt lead to many readers rolling their eyes, momentarily checking out and thinking "ok, here we go", but bear with us. Since 2003 this bill has come a long way and there are now several important considerations.

NEW ZEALAND'S
Greenhouse Gas Emissions

Source: New Zealand's Greenhouse Gas Inventory 1990 - 2017, published April 2019



Note: Percentages in the graph may not add up to 100 due to rounding.
Fugitive emissions are from the leakage, burning and controlled release of gases in oil and gas operations as well as escaping gases from coal mining and geothermal operations. Agricultural methane is mainly from livestock digestive systems and nitrous oxide is mainly from manure on soil.

Firstly, some data. Agricultural emissions in New Zealand are huge. 48% of total carbon emissions from all sources are attributed to Agriculture. Of the 48%, approx. 90% is attributed to ruminant animals raised on our farms. Agricultural emissions cannot be ignored in the greater scheme of reducing emissions to cap global temperature increases at 1.5 degrees C as New Zealand agreed to in signing the Paris Agreement.

Importantly for farmers the 'The Climate Change Response (Zero Carbon) Amendment Bill' placed Greenhouse gases produced by ruminant animals into its own separate 'basket'. Biogenic gases such as methane, will now be treated differently to fossil fuel Greenhouse gases due to their behaving very differently in the atmosphere.

The 'The Climate Change Response (Zero Carbon) Amendment Bill' removed the 'Net Zero' requirement from agricultural emissions considering the short-lived life of methane in the atmosphere. However, these emissions are not able to be traded or 'offset'. Reduction is the goal.

Article continues on page 2.

See inside for:

CASE STUDY AND CONTRACTORS CORNER:

In this edition we visit a farmer who has waited 10 years to purchase his Tow and Fert and Contractor JT Ag Spreading to find out how they are looking after their clients in Ashburton.

Scott Charmley

Dairy Farmer, Dannevirke.
More grass, no dust and more $$$.

Scott Charmley first saw the Tow and Fert Machine over 10 years ago. It was not until the release of the Tow and Fert Multi 500 that he finally took the plunge with some impressive results.

Jeff Rutten

JT Ag Spreading, Ashburton
On-farm trials help to prove concept.

Jeff Rutten decided to go fert spreading when the Tow and Fert Multi 4000 wasn't being used. Three years later he hasn't looked back with a growing business and a growing team.

For a FREE on-farm Demonstration of a Tow and Fert call 0800 337 747 or visit our website www.towandfert.co.nz

FOR THE HEALTH OF YOUR SOIL

HUMATES ARE THE PERFECT COMPLEMENT FOR INCREASED EFFICIENCY OF FERTILISERS WHEN USING YOUR TOW AND FERT.

Contributor article: Provided by Southern Humates

Humates are a pure form of organic matter, resulting from an accumulation of decayed forest and other carbon rich plant material that have been compressed and preserved over the ages.

Humates are high in carbon, natural minerals and two powerful bioactive acids, humic and fulvic acid.

Humates stimulate microbial activity within the soil, which increases bacteria and fungi levels, leading to improving plant quality, better yields, and greater productivity.

Malcolm Sinclair stands near his Humates seam in Southland New Zealand. He says Humates are an important part of a healthy soil system.

The benefits of humic acid and fulvic acid can be grouped into 5 main categories

Physical Benefits

- Increase the water holding capacity of soil
- Improves drought resistance of soil
- Helps to retain water soluble inorganic fertiliser and mineral substances.
- Enhances the uptake of nitrogen by plants
- Reduces the availability of toxic substances in soil

Chemical Benefits

- Improves and optimizes uptake of nutrients and water holding capacity
- Stimulates plant growth with its rich organic and mineral substances
- Helps to retain water soluble inorganic fertilisers in the root zone
- Enhances the uptake of nitrogen by plants
- Reduces the availability of toxic substances in soils.

Biological Benefits

- Stimulates plant enzymes and increases their production
- Stimulates growth and proliferation of desirable micro-organisms in soil
- Enhances plant's natural resistance against diseases and pesticides.
- Stimulates root growth, especially vertically and enables better nutrient uptake
- Increases vitamin and mineral content of the plants
- Thickens cells walls in fruit and prolongs their storage and shelf life
- Increases germination and viability of the seeds
- Stimulates plant growth
- Increases quality of yields - improves their physical appearance and nutritional value.

Economic Benefits

Humic acids chelate nutrient compounds in the soil, especially iron, into a form suitable for plant utilization, optimizing the plant's nutrient supply. This promotes up to 70% increase in yield, accompanied by a reduction of up to 30% in the use of fertilisers and pesticides. This results in better and healthier growth of green grass, ornaments, agricultural crops, and trees. Additionally, the regular application of quality humic acids increases water holding capacity of soils, substantially reducing the need for irrigation.

Ecological Benefits

Humates reduce water contamination. Soils with a high content of humic acids encourage minimal nitrate leaching and optimise nutrient efficiency. A well- developed root system, which is achieved by high a content of humic acids, prevents nitrate and pesticides from mixing in with ground water.

Often growers use more fertiliser than plants can take up. This leads to high nitrate concentration in the soil, which is later found in ground water, causing water contamination.

Humic acids are able to decrease high salt content in soils and resulting toxicities. Especially the NH4 toxicity of fertilisers containing ammonia, which is reduced and of great importance for young plants. Generally, humic acids reduce root burning which comes about through excessive salt concentrations in soils after fertilisation.

Humic acids are an effective means to fight against soil erosion. This is achieved by increasing the ability of soil colloids to combine and enhance root systems and plant development. Humic acid and its benefits have been certified by many International Organic Agriculture Institutions.

Not all humates are equal.

Southern Humates is sourced from a private site at Waituna in the deep south. Due to its location Southern Humates products have been shown to be consistently high in Humic Acid at 43 – 46%. Southern Humates is ideal for adding to your Tow and Fert applications – Southern Humates recommends the use of Fine humate which is screened to 0-1mm as it flows consistantly through the applicator. Available in 20kg and ½ Tonne bags or in bulk.

For those who apply liquid foliar fertiliser, SprayMate has a humate content of minimum 20% which adds real value to improving microbial activity when applied to grain and horticulture crops. SprayMate is available in both 20L and 1000L pods.

Southern Humates products are Certified Organic.

Southern Humates

CERTIFIED bio gro NZ CERT INPUT FOR ORGANICS 5638

Get in touch with Steve, National Sales Manager, to place your order or seek further information call 021 150 6050 | www.southernhumates.co.nz

Continued from front page

And this is where the story begins to become more realistic for today's farmers. By 2030 the target for reduction of methane produced by ruminant animals is 10% below 2017 levels, and by 2050 between 24-47%. No longer is it net zero.

Throughout the Agricultural sector across the world, studies are being undertaken into methane reduction methods in ruminant animals. And the progress is positive and happening rather quickly.

Solutions include studies into allicin, a compound in garlic which has been found to interact with microbes inside the cow's stomach reducing the methane production, in some studies, up to 38%. Not only has methane production reduced but milk production increased possibly because of less energy being spent on the production of methane. And whilst the science is still early the results are promising.

Other potential solutions to the methane problem in cows are seaweed products. Indeed, New Zealand based companies are conducting world leading research into the benefits of their products in methane production with some positive results. There are challenges with bringing these products to market, but the research, science and production is gaining ground every day, and solutions might just be around the corner.

Further and longer term are the possible production of vaccines against the methane producing bacteria.

Whichever way you look at it many people are working hard knowing that methane reduction is essential to the environmental threat posed by this greenhouse gas and solutions would not seem to be too far away.

The 'Howl of a Protest', organised by Groundswell saw tractors and farm machinery take to the streets of cities around New Zealand.

Fumes. The 'Ute tax' was a bolt from the blue. Could 'for work purposes' be an exemption?

This was one of the more perplexing, and sudden, decisions by the government and ultimately for many farmers the tipping point. It led to the extraordinary sights of tractors driving down Auckland motorways and blocking streets during the 'Howl of a Protest' on July 16th.

The Rivian R1T, one of the first all electric 'Utes' available for purchase now with a range of just over 500kms.

The 'Ute tax' or the Clean Car Discount Scheme essentially takes from one - high emitting vehicles; to give to another – low emitting vehicles. By offering discounts or subsidies on electric vehicles those people who purchase vehicles such as diesel burning Utes and 4WDs will be 'taxed' to pay for the discounts on the EV's eligible under the scheme.

Most of the publicity around the 'Ute tax' focused on the fact that there are no electric alternatives yet available for farmers and those that need Utes for work purposes. However, the data tells an interesting story of its own.

Only 10% of Utes are registered for work purposes. This means that 90% of Utes sold in this country are sold for personal use as the family car, boat tower or caravan puller. With that in mind it is obvious that this scheme does not need to target farmers or tradies, but rather city dwellers using these big 'trucks' for the aforementioned purposes. As one writer mused in her article for Stuff titled 'Blame City Slickers for Ute Tax',

"It's (The Clean Car Discount Scheme) a tax on hardworking farmers in Utes, fuelled by poncy urbanites in even more Utes, which has meant we all now need to really, really, stop buying these ozone eaters."

With no EV alternatives for carrying heavy loads or pulling heavy trailers yet available and not likely to be for some time the best that farmers can hope for is that common sense prevails and that the talk of possible exemptions to The Clean Car Discount Scheme for work purposes are put into action.

Either that or get in now and purchase your new Ute before the scheme kicks fully into gear in January 2022.

Is the sky falling or are 'acorns' simply being tossed at farmers when they aren't looking?

It is absolutely fair to feel that farmers have had a bad run over many years as environmental concerns have risen to become one of the countries hot topics of conversations around the watercooler.

But like the watercooler, these conversations are often taking place in offices and homes well away from the coal face of farming: on the farm itself.

Fertiliser regulations have kicked in and farmers have responded and continue to respond. Tools like the Tow and Fert are helping to significantly reduce the aftereffects of solid fertiliser application, whilst improving results and saving farmers money.

The 'fart' or 'burp' tax looks to have solutions around the corner and farmers would do well to take note of these and integrate new products into their systems for testing as soon as they can.

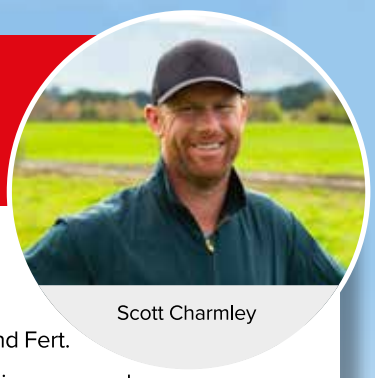
The 'Ute tax' is a different breed. It is a policy that seems to warrant the shaking of one's head and at first glance it looks suspiciously like an 'acorn' tossed in a by a government intent on virtue signalling to its voting demographic.

To return to our fable from the introduction, Chicken Little can now turnaround and look at the sky and see that it is not falling, that, in fact it is simply changing colour with the odd 'acorn' falling from the government policy tree.

The two constants in life are time and change. Change will always present challenges. How we approach and tackle the need to change is the test of our character. The sky is not falling in on farming, in fact the future is bright and its potential for environmental contribution to the world at large has never been greater.

CASE STUDY
Scott Charmley, Dannevirke

AN EXTRA $11,000 IN MILK SOLIDS IN LESS THAN 3 MONTHS OF OWNERSHIP!


Scott Charmley

Owning the Tow and Fert Multi 500 has resulted in more grass and more milk for Scott Charmley. But wait.... there's more.... the application of animal health products in the Tow and Fert means "no dusting."

Scott Charmley remembers attending a discussion group over 10 years ago and seeing the Tow and Fert in action. At the time he was sharemilking, and he remembers that nitrates and environmental issues were just beginning to come to the forefront of farmers minds.

What piqued his interest, however, was the possibility of halving the amount of fert he applied. It was obvious to him that this meant savings on the environmental front and on the business front.

Fast forward 10 years and now Scott and his family farm 215 cows on 78 hectares of pristine dairy land beneath the Ruahine ranges near Dannevirke.

Over the past 10 years Scott had kept an eagle eye on the Tow and Fert range development, waiting for a machine that he felt was suitable for his farm. Enter the Tow and Fert Multi 500, released at the beginning of 2021. For Scott, this seemed the perfect size. With an average paddock size of 2ha the 500-litre tank could do two paddocks in one round. It was the perfect size for his farm.

Scott was the first farmer to purchase the Tow and Fert Multi 500 and he immediately started putting on Urea and Gibberillic Acid in one pass.

Scott says, "I had a good idea of what the machine should be able to do so I started with Urea and Gib Acid following the cows once they moved off a paddock."


Scott applying fertiliser to his pasture after the cows have been through the paddock using the Tow and Fert Multi 500 with electronic actuation.

"I started with 30kgs of Urea and 40mls of Gib Acid per hectare and it is working really well. We are getting a response that is equivalent to putting on 60kgs of solid urea."

Scott says that the ease of use is one of the key benefits to the Tow and Fert.

"I can put on what I want when the grass needs it. I do two paddocks in one round using the P30 nozzle travelling at approx. 16kms an hour. Each paddock takes less than 10 minutes following the cows."

Early on Scott decided to invest in the electronic actuation control upgrade which he says has been money well spent, "for me the electronic actuation upgrade just makes the machine that much easier to use."

Asked about his results and Scott is enthusiastic;

"We have had the Multi 500 since March this year (2021). We kept our cows on for a week longer than our neighbours and grew 70kgs/ha of dry matter through May. We've produced an extra 1500kgs of milk solids this season and have almost paid off our investment in the Tow and Fert."

He goes on to say that the farm is now producing more grass with only half the Urea, and he is well under the new environmental limitations.

During the late winter as Animal health became a priority Scott began to use his Multi 500 for applying Mag Oxide and Lime Flour. It was something he was looking forward to trying. Asked how it went, he says,

"It has been brilliant. I applied Mag Oxide the other day, seven days' worth in 20 minutes and the best part is, no dust. And what we have noticed now is that our cows are healthier, and we have had less issues with down cows this spring."

The Tow and Fert enables Scott to apply the Animal Health products directly to the leaf of the grass meaning that cows cannot avoid eating the products.

"Every animal is getting what they need now, there is no avoiding these products which are so critical to their health."

And on the dust front, "Wow. Just brilliant. Dusting is something most farmers loathe so not having to worry about that is awesome."

Scotts text to Tim Henman, Metalform Sales Manager, after completing his Animal health product application.

CONTRACTORS CORNER
JT Ag Spreading

ON-FARM TRIALS HELP FARMERS SEE THE BENEFITS OF FOLIAR APPLIED FERTILISER QUICKLY


Jeff and his son

Tow and Fert Contractor Jeff Rutten of JT Ag Spreading in Ashburton carries out trials on clients farms to help them decide if foliar application of fertiliser is going to work for them.

Jeff Rutten first started using his Tow and Fert Multi 4000 in 2015. For 18 months he and his family used the machine to improve their farms performance. After his parents decided to sell their share of the family farm Jeff also decided to get out of farming so the family sold up.

Shortly after selling the farm Jeff realised that the new owners were not using the Tow and Fert so he approached them to see if he could purchase it off them with a view to setting up a Tow and Fert Fertiliser Contracting company.

Jeff knew the results he could achieve from what he had done on his own farm, so it seemed like a relatively easy segway into the contracting business. At the start Jeff says farmers were reluctant,

"Farmers are somewhat change resistant and they were often reluctant to jump into foliar application of fert. Clients would see the bill and see that the application cost was more expensive than a bulky."

Jeff says that this was only part of the story though and many clients didn't consider the increased growth they were getting,

"Some of our clients would only see the bill at the end of the month and compare that to the bulky charges. But this was really misleading as we knew we were growing more grass for them, and they weren't taking this into account."

This led Jeff to start running trials on his clients' farms and measuring the results.

Below we have collated the results from three of JT Ag Spreading trials. You will note that in each trial more grass has been grown, less fertiliser has been used and cost savings have been made.

Trial Products used: Granular Sustain Vs Liquid Urea

JT AG Spreading - Client Trial Results

Products Applied — Sustain @ $ 661.00 — Urea $ 604.00

Farm	*Product*	*Rate KG/Ha*	*Paddock*	*Residual*	*Pre Grazing*	*Growth*	*Days*	*Average Growth*	*Cost per KG/DM Grass grown*
Poplar Farm	Granular Sustain	80	15	1760	2236	476	17		
			21	1700	1998	298	17		
								387	$ 0.14
	Liquid Urea	60	12	1400	2250	850	17		
			23	1460	2020	560	17		
								705	**$ 0.05**
Waingake Farm	Granular Sustain	60	2	2064	2278	214	9		
			29	1774	2132	358	9		
								286	$ 0.14
	Liquid Urea	48	23	2084	2628	544	9		
			31	2152	3286	1134	9		
								839	**$ 0.03**
Winslow Farm	Granular Sustain	70	41	2054	2450	396	18		
			31	1834	2710	876	18		
								636	$ 0.07
	Liquid Urea	40	29	1863	3267	1404	18		
			35	1494	2430	936	18		
								1170	**$ 0.02**

On each of the three farms where trials were completed more grass has been grown in the foliar applied paddocks than in the granular applied paddocks resulting in a significant cost saving across the tested paddocks.

Jeff says that when he shows the data to the managers and farm owners the reluctance to change disappears quickly. Jeff says,

"The farm managers are really impressed, and most can see the difference before seeing the data."

For Jeff and the JT Ag Spreading team, which now consists of three tractors and three Tow and Fert Multi 4000's, the results speak for themselves.

Jeff says "We are in the business of helping farmers achieve their goals. By running these trials, we can show them what they can achieve and how quickly they can achieve it, moving them closer to a more profitable, environmentally friendly farm."

Client Trial Results - Summary

Farm	*Product*	*Grass Grown (Average)*	*Kg DM grown per day*	*Cost/kg/DM grown*
Poplar Farm	Granular Sustain	387	22.76	$0.14
	Liquid Urea	**705**	**41.5**	**$0.05**
Waingake Farm	Granular Sustain	286	31.8	$0.14
	Liquid Urea	**839**	**93.22**	**$0.03**
Winslow Farm	Granular Sustain	636	35.33	$0.07
	Liquid Urea	**1170**	**65**	**$0.02**

For more information or to run a trial of your own from the JT Ag Spreading Team, contact Jeff Rutten on 0210 246 7454 or email Jeff for the full trial results on jtagspreading@hotmail.com

Read and watch more case studies at www.towandfert.co.nz

SPRAY NOZZLE ACCURACY:

ACHIEVING A COEFFICIENT OF VARIATION BELOW 15%.

The accuracy of fertiliser placement is becoming more and more critical for many reasons.
The design team at Tow and Fert undertook to achieve a benchmark accuracy test of below 15% Coefficient of Variation.

This is the story of how they did it...

Spray Nozzle accuracy is something we have had numerous discussions with customers over the last 18 months and in July last year the Tow and Fert Design team got a Nozzle design accuracy project underway.

This was a tricky project but one that was essential in the development of the Tow and Fert and proof of placement of fert as well as ensuring the environmental benefits of the Tow and Fert Machines into the future.

GAME OF CHESS ANYONE? 3D Printing of nozzles speeds up the design process.

A lot of time, effort and creativity goes into the design of the Tow and Fert Machines. Whilst these images might look like we are designing chess pieces, they are nothing of the sort.

These pictures show just some of the different Nozzle designs the team went through in developing a more accurate nozzle. The accuracy of the placement of fertiliser is important to produce Dry Matter and the production of Milk. Additionally, fertiliser placement is important for environmental compliance.

The result of all the testing and design was the determination of seven key dimensions that can subtly be changed to tune the performance of the nozzle. Each of the nozzles shown here have slight changes to these dimensions to change the spray pattern.



Manufacturing stainless steel nozzles is a time consuming and expensive way of testing. The team decided a 3D Resin printer would enable them to design and test multiple nozzles at a time. They could now make a selection of nozzles in less than 12 hours. This was the beginning of making the stream from the nozzle consistent and even, without a pulsing effect.



One key element the team realised was the importance of consistent pressure at the Nozzle end of the booms.

Design Manager Liam explains the pressure importance as follows, “The pressure created by the Tow and Fert at the end of the booms is important to ensure the accuracy of the nozzles. A small drop in pressure can completely change the spray pattern obtained.”

With each change to the nozzle design there was a trade off in another part of the programme, be it spray pattern, spray width or sputtering that occurs as the liquid exits the nozzle. It was simply a case of trial and error, redesign and print and trial again.

TESTING, TESTING. Spray variance (Coefficient of Variation) under 15% achieved.

Using the B30 Nozzle the team started using blotting paper before shifting to clear plastic trays and measuring the combination of tray and liquid for the results. Initial results were looking positive.

A pass mark meant that the spray pattern variance across the range was under 15%, the percentage required. It was now time to set about testing the application in the field.


FIELD TESTING SUCCESS: On-farm testing replicates factory testing.

In mid-July the team headed to Canterbury for the official testing with clients’ machines.

With perfect weather on the day of testing the team needed to ensure that the area they were spraying on was flat. This would mean that each nozzle was at the same height ensuring even distribution of fertiliser across the spread width.

Wind was also something that needed to be considered. Wind can create a shift in the spray and whilst testing had shown that wind tended to shift the entire spray width it was important to be aware of the possibilities if the wind got up. On this particular day the sun shone, and the wind stayed away leaving perfect conditions for testing.

Recreating the test back at the factory using plastic trays, the Tow and Fert owners would drive through the testing area at a specific 16kms an hour using the B30 Nozzle. This would ensure a consistent spread was achieved and that each run was the same.




NOZZLE ACCURACY SUCCESS!!

Fertiliser Placement "Coefficient of Variation" of 13.9% was achieved, below our benchmark of 15%.

Liam, Tow and Fert Design Manager says

“This was a way more complex project than we ever imagined, and it is terrific to finally have achieved what we needed to achieve. For our clients both contractors and Tow and Fert owners this result gives them assurance of placement within industry standards of their fertiliser. The benefits to farmers from this result and to the environment are many not least of which is knowing how much and where their fertiliser has been placed.”

The Tow and Fert Range.


MULTI 500


MULTI 1000


MULTI 1200


MULTI 2800


MULTI 4000

For more information or to BOOK A FREE on-farm DEMONSTRATION
CALL 0800 337 747 or email sales@towandfert.co.nz

TOW AND FERT BY METALFORM

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