



Cell Check Top 500 - Arrabawn's Top Supplier



Martin and Margaret Coffey, Arrabawn's Top Suppliers in the Cell Check Top 500 Milk Quality Awards.

Martin Coffey (Balinloughnane, Athenry), is no stranger to the CellCheck standards and to what it takes to win awards. In 2017, Martin won the Co-Op Top Supplier Award for outstanding milk quality. His herd of 24 British Friesian x Holstein, Spring calving cows are left out grazing for the duration of the lactating season. From daily milking to grass management, no job is left undone by Martin and his wife, Margaret. Martin's SCC for 2019 averaged 43,000, with some months being as low as 31-32,000 SCC. Martin attributes his high-quality milk to three main focuses on his farm. Firstly, Martin's attention to hygiene in his parlour is commendable, in particular to the teat

spraying of each cow to help manage SCC averages. He also believes that a calm environment on his farm has a positive impact on the quality of his milk. Martin believes that "cows are smart animals, and they will sense stress in the air". Martin knows each of his cows individually and allows each cow to dictate the pace in which they travel to and from the parlour. High levels of stress can cause a weakened immune system, resulting in higher SCC levels. Finally, Martin's careful selection of bulls for breeding his replacement heifers has positively impacted his impressive milk quality. The bulls are chosen based on their EBI, with particular attention given to desirable health and milk quality traits. Everyone at Arrabawn would like to thank and congratulate Martin for his continuous dedication to producing his high-quality milk.

Yemen Appeal

Following a recent appeal, a total of €9,710 has been raised by Arrabawn milk suppliers towards the humanitarian aid project for Yemen. This project has been run in conjunction with the Irish Red Cross and ICOS. Many thanks for your generosity towards this very worthwhile cause.

Michael Hogan, Teagasc

Congratulations to Michael Hogan, Agricultural Adviser with Teagasc, on his recent retirement following 40 years' service. We would like to thank Michael for all his support and assistance down through the years and wish him all the best for the future.

Milk Quality Advisor:

Thinking of drying off?

please notify your lorry driver when you are drying off your cows. Either contact him directly or you can contact head office or your milk quality advisor.

CHLORINE FREE

Chlorine / Chlorate Free Milk - 1 month to go!!

It is hoped that everyone has got the message by now - Arrabawn is hoping that no one will be using chlorine based hygiene products in their milking parlours from Dec 31st 2020.

Arrabawn has just completed successful Chlorine Free trials on a number of farms - many previous problems revolved around cleaning routine, water temperature, water volume and basic plant cleanliness

If your farm is not Chlorine Free at this stage, please start now. Under direction from Ornu, Arrabawn hopes to have all milk supplier farms chlorine free by year end. Many suppliers have already made the move and are happy with the chlorine free procedures.

Work carried out at Teagasc, Moorepark has shown that Chlorine based products can be replaced with highly effective Chlorine Free products, some of which will have cleaning, disinfecting and descaling properties, **all in one, such as Divosan OSA-N.**

The recommended products are effective and approved by Teagasc. There have been a few issues relating to water temperature, rinse water, circulating times and routine but none too difficult to overcome.

With just one month of milking left for this year, it is important that suppliers adopt the chlorine free products and procedures **now** so that they are ready for the 2021 season.

Caution: - farmers should avoid 'special deals' at this time of the year when salesmen are selling off older 'chlorine based' products at a good price! The intention should be to purchase only 'Chlorine Free' dairy hygiene products.

If you have any queries about 'Chlorine Free' dairy hygiene products please don't hesitate in contacting your Arrabawn Milk advisor or call to your local Arrabawn Branch.

So, - Think Chlorine Free!!

Focus on Fertility - Drying Off

Cows are milking well at the moment and many farmers have been feeding cows well into the autumn. It is now time to plan for next year's calving and breeding season.

Research at U.C.D. indicates the main area of attention regarding infertility in dairy cows was the **body condition score at drying off**, it was highlighted as the main contributor to fertility/infertility in the following breeding season.

Body condition score, on a scale from 1 - 5, should be in the region of 3.25 to 3.5 at drying off. Cows are more efficient at putting on condition in the later stages of lactation. Dry matter intake is stimulated by milk yield and dry matter intake will decline to about 10-11 Kg/day during the dry period approaching calving, in heifers dry matter intake will drop to about 7 kg / day.

This is normal enough but it is crucial that cows are in good condition going into the dry period. When a cow calves she will immediately start losing body condition. The biggest loss in body condition will occur in the first week after calving. A high yielding cow with a body condition score of 3 at calving could arrive at a body condition score of 1 by week 12 of her lactation. A cow with a body condition score of 1 has only a 17% chance of going in calf at the first service. An average cow might only drop to a body condition score of 2-3 at 12 weeks - so high yielders are most vulnerable if they are dried off in poor condition.

At the other end of the scale, fat cows will have dry matter intake problems as they are likely to eat less as a % of their body weight and are therefore prone to disorders such as ketosis, mastitis etc.

Body condition at drying off has implications for weight loss after calving, heat detection, interval to 1st service, milk protein %, milk yield and ultimately culling rate.

Plan of action - aim to have cows drying off in reasonable to good condition, with a body condition score of 3.25 - 3.5. It is recommended to feed while the cows are still milking for the most efficient weight gain. Feeding a high energy ration with medium to low protein is best. Fat cows may need to be restricted in their energy intake, possibly by the inclusion of extra straw in their diet in late lactation and the dry period. The consequences of a high body condition score in fat cows is a low dry matter intake pre-calving, which will result in a much higher % weight loss in the 3 weeks after calving.

So Why is it so Important to Condition Score Cows?

A Stitch in time.

1. Levels of energy reserves of dairy cows change throughout the year and need to be carefully managed.
2. In early lactation cows use their body reserve, as energy requirements are difficult to manage with concentrates and silage unless fed in large amounts. So body reserves must be built up before calving.
3. Target condition score to be 3.0 - 3.5 at calving so body fat can be used to meet energy requirements after calving.

Remember it's too late to put on condition once cows calve down in poor body condition.

Minerals

Get the balance right.

Dry cow minerals are an essential ingredient in the winter feeding of dairy cows. Minerals should be fed at least once a day and if possible, twice. Selenium and Vitamin E can help in the reduction of Mastitis and high cell counts. Zinc will help improve skin and hoof quality. Copper has been associated with fertility and iodine is essential for calf vitality at calving and heat detection.

The **Arrabawn Co-op Pre-calver + Trace Pak** has been designed with the Arrabawn Co-op area in mind.

Many Farmers are starting to dry off cows at present and at this stage of the year body condition score is of the up most importance. You should aim for at least 8 weeks dry period. Thin cows and heifers should be dried off as soon as possible to allow them to put on body condition. One body condition score equals 50kgs LWG.

Silage quality and milk quality!!!

Every year there is huge variation in silage quality --- low dry matter, low energy and low protein.

The low protein and low protein quality could have serious implications for the calving cow. In late lactation the pregnant cow has a huge requirement for protein, with the almost full-weight calf and also the preparation for colostrum/ milk production.

The cow will normally have a reserve of protein 'floating' around in her body. This protein reserve will be used for the production of colostrum in early lactation and will also contribute to the overall milk protein yield.

If the dietary protein is not enough to maintain this protein 'reserve' then the cow could develop a protein deficiency which could show up as

- Loss of Appetite, reduce feed intake
- Poor quality colostrum
- Low milk protein
- Low milk yield

In order to correct this protein deficiency, cows should be supplemented with a high protein concentrate, such as **Easycalver** from Greenvale/Dan O'Connor Feeds in the weeks pre-calving. The Easy Calver is a high protein (soyabean) concentrate aimed at boosting the cow's protein reserves in the run up to calving. The ingredient/ mineral balance is also geared to help the cow calve quickly and pass the foetal membranes quickly and cleanly after calving, while also reducing the risk of milk fever.

After calving the cow should receive a medium protein concentrate to avoid forcing excessive milk production causing loss in condition as she approaches peak milk yield and the breeding season.

If you haven't checked your silage quality yet, it might be worth considering. A silage analysis report will indicate if you need to give your cows extra protein before they calve.

Silage Analysis - now is the time !

For further information contact Dan O'Connor Feeds rep or your local branch of Arrabawn Co-op.

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BLACK FRIDAY STEAL A DEAL OFFERS



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Drying things to do and things to avoid!

Planning - Review expected calving dates to plan your dry off dates, taking into consideration the shorter gestation length of some sires. Cows need a dry period of eight weeks to allow for udder repair and to rejuvenate, which is especially important for thin or young cows. Cows with persistently elevated SCC are a risk to others and often have poor cure rates, so should be dried off early. In some cases, they may need to be culled. It is important to put time aside to discuss records, the drying off procedure and appropriate dry cow antibiotic selection with your vet or milk quality advisor. Bear in mind that this is not without risk, and professional support should be sought before attempting it. In January 2022, new Veterinary Medicine Regulations will come into effect, meaning farmers will have to move away from 'blanket dry cow' therapy towards more selective strategies. To ensure a successful transition, use the 2020 dry off event as an opportunity to prepare and build confidence and experience.

Dry off abruptly and avoid skipping milkings leading up to dry off. Where cows are yielding greater than 12 L /day in the week before dry off, reduce feed availability, but not water access, to reduce milk production by the dry-off date.

- Have the necessary equipment ready, including a clean apron, disposable gloves, teat wipes/cotton wool, methylated spirits, marker, head torch and intramammary tubes.
- It is important not to dry off cows when you are tired, hungry, or stressed. Only dry off 20 cows at a time and have additional help available to assist. Have a system in place for cleaning, sterilising teats and tubing, and repeat for each cow.
- Ensure teats are disinfected post-tubing and clean the parlour between batches to maintain a clean environment. Keep cleaning teat ends until the wipes comes away clean.
- Regular teat spraying is good practice. May seem like a simple process but is very effective at controlling udder health. Both maiden heifers and cows are be sprayed regularly.
- To avoid any errors good identification of cows and accurate record keeping are essential.
- Following dry-off keep the cows standing for a minimum of thirty minutes in a clean yard before putting in a dry field or clean cubicles. This ensures the teat seals itself naturally. The tips of the tube is wider than the naturally opening, so takes time to contract back to natural size.
- Clean and lime cubicles twice daily for the entire duration of the dry period and use this as an opportunity to monitor the cows, as they are susceptible to infection particularly for 2 weeks after drying off and 2 weeks before calving. These weeks are high risk for picking up mastitis and result in cow calving down with mastitis.
- Correct dry cow nutrition and sufficient cubicle numbers, ideally 110 for every 100 cows, are other essentials during the dry period. Dry cow minerals should be offered for full duration of the dry period. Especially for the week cows are on restricted diets. Cows go from a nutritious diet of good quality silage and ration to possibly straw/hay. The sudden diet change must be supported with minerals to maintain health and development of calf.

Fertilizer and Soil Analysis and Derogation

The recent provisional report on Climate Change and the Nitrates directive suggests major changes to the way we farm and apply nutrients.

Over the next year or so there will be a big push to collect 'Data'. This data will come from a few areas around the farm

- **Soil analysis for more targeted fertilizer usage leading to more efficient use of fertilizer and correcting the lime status of a particular field.**
- **Silage feed analysis to ascertain the correct concentrate which should be fed to the lactating cows, optimizing milk yield and reducing methane emissions. There may be restrictions on the level of protein in purchased concentrate in order to reduce the level urea in milk - a high milk urea reading would suggest too much protein/ nitrogen in the diet.**
- **Milk recording to identify the lower yielding cows or cows with a high cell count.**
- **Sensitivity testing of milk with a view to using the most suitable antibiotic for the control of mastitis / high SCC.**
- **Silage mineral analysis to identify any mineral deficiencies which may affect fertility performance and predict issues around calving.**
- **Grass growth measurements and reseeding - inclusion of clover in all new reseeds. This clover will increase the digestibility of the sward and will also release nitrogen into the soil.**

With fluctuating fertilizer prices, it was never more important to have a plan for the purchase of fertilizer. Many farmers are neglecting to include the phosphate content of feed concentrate in their overall fertilizer phosphate calculations. This can have implications in the event of an 'audit'. It may be a good idea to take a soil sample to determine your Phosphate requirements. You may be using too much fertilizer phosphate, and by cutting back you will have the choice of using the optimum level of feed concentrate.

If you have any queries on fertilizer or feed use contact your local branch of Arrabawn Co-op.

Arrabawn



10% OFF PROMOTION

In association with Finol, we have a 10% off the instore price of all 20lt of our new Arrabawn range of dedicated engine, transmission and hydraulic oils. Included are:

Turbo Diesel E7 15w-40, Super Turbo Diesel E9 15w-40, Ultra Low SAPS SYN E6 10w-40, Hi-Spec Tractor Back End Fluid, Tractor Trans SYN UTTO 10W-40, Hydraulic 32, Hydraulic 46, Scraper Oil HV15, Milking Machine Oil, Chain Oil

There is a free 2 handed grease gun when you buy a box (20) of red or blue 500gm Grease.

There is also €1.00 off a 500gm grease cartridge when you buy a box (20) and €0.50c off a 400gm cartridge when you buy a box (24).

WINTER IS COMING

There is 10% both 5lt and 20lt drums of our Arrabawn range of red and blue, Premixed and Concentrate Antifreeze.

SEE INSTORE FOR DETAILS

Batch No.

Offer lasts until

31st December 2020

20L



Arrabawn Co-op, Stafford Street, Nenagh, Co. Tipperary. Ph: (067) 41800

www.arrabawn.ie

Selective Dry Cow Therapy

Blanket dry cow therapy (BDCT) has been a standard method for both treatment and prevention in the dry period. This method uses antibiotics in all of the cows in the herd at drying off. Blanket treating the herd with antibiotic dry cow therapy there will be many cows in the herd that are treated with antibiotics when they don't need it. Antimicrobial resistance is a real problem in human and veterinary medicine and we are running out of options. Therefore, the whole of the agricultural sector needs to do its best to reduce the use of antibiotics as much as possible, without impacting animal health and welfare. Selective dry cow therapy (SDCT) and use of teat sealants will have to be practiced from 2022 onwards. An added financial incentive should also be realized by reduced expenditure on unnecessary antibiotic treatments.

Suitable Herds for SDCT must have the following

- Herd average SCC at a minimum under 150,000 in 2020.
- Be milk recording for the least 2 years.
- Have done a milk sensitivity test.
- Culture negative for Strep Agalactia (results of Sensitivity test)
- Cubicles and housing maintained clean, dry and limed at least twice per day.

- Good clean and dry calving facilities that are disinfected at least once a week during the calving period.
- A final milk recoding done within 30 days of drying off.
- Less than 10% new infection rate in the last two dry cow periods.
- Less than 15% new infection rate in last year's Heifers

Suitable Cows must fulfil all the following.

- Cows less than 100,000 SCC in last recording.
- Cows that had no reading over 150,000 for 2019,
- CMT test all cows as you dry off to insure no new infection.
- Cows that had no case of clinical mastitis recorded in 2019.
- Cows that have no visible teat damage and are not extremely free.

Tips

- **Don't put sealer tubes in hot water!!!**
- Dry after morning milking.
- Dry in small groups 10 to 20
- This procedure requires concentration and focus.
- This job requires time and cannot be rushed.
- Head torch can help to ensure cleanliness and clear view of teat.



"MINDING YOUR HEAD ON THE FARM" VIRTUAL CLASSROOM TRAINING COURSE FOR FARMERS

CHRIS MEE GROUP

We're in this together.



This course looks at the mental health risks facing farmers as lone workers. It outlines how they can recognise the warning signs of deteriorating mental health. It informs on how to access available supports. It demonstrates how to look after and improve their mental health and looks at the importance of staying connected and managing stress.

Topics Covered:

- Loneliness & Isolation
- Lone Workers: "Out of sight - Out of Mind?"
- Feeling Disconnected
- Feeling Unsupported
- Added pressure of Covid-19

Being aware of the signs of deteriorating mental health

- Reaching out for help
- Dealing with Stress
- Looking after your mind
- Learning to control the things you can control
- Pruning Your Mind
- Healthy Body...Healthy Mind
- Staying socially connected
- Accessing Supports
- This course is offered FREE OF CHARGE to Farmer Members of Cooperatives
- It is funded at 100% by ICOS Skillnet in support of industry.

COURSE FACILITATOR:

Donal O'Mahony RMHN, CNM2 - CMSE

Over 35 years working as a Mental Health Nurse in Ireland, UK & Australia. Experience of working in a variety of areas including Addiction services, Forensics, Admission & Community settings. Last 15 years working as Nurse Manger in Day Hospital leading a team which specialised in supporting clients with Mental Health issues to continue in the workplace and assisting a return to work following an episode of illness. This involved liaising with employers and agencies i.e. Cork Education & Training Board and Employability Services Chairman of West Cork Disability Support Network (2010-2015)

This course will run twice and the maximum number of participants is 10 per session. Places will be allocated on a first come first served basis.

Dates 3rd December 2020

8th December 2020
Duration of Course 2.5 Hours

Time of Course 10.30am - 1pm
Method of Delivery Virtual Classroom Platform Used Microsoft Teams

ICOS Skillnet is co-funded by Skillnet Ireland and network companies. Skillnet Ireland is funded from the National Training Fund through the Department of Further and Higher Education, Research, Innovation and Science.



An Roinn Rannsóidreachaí agus Ardóidreachaí, Taispeán, Nuálaíochta agus Eolaíochta
Department of Further and Higher Education, Research, Innovation and Science



To book a place on this course please see contact details below:

Email: info@icoskillnet.ie - Breeda Flood, Operations Manager, ICOS Skillnet 086-827-7814
Billy Goodburn, Head of Learning, ICOS Skillnet 087-126-5542



Garda Message

Garda Síochána are supporting Europol in a Europe wide campaign to promote safe online shopping during the Christmas season and beyond from the perspective of consumers and of businesses. In the period from 1st January 2020 until 31st October 2020, 489 Online Shopping Frauds have been reported to An Garda Síochána. The average loss was €2,306 per incident representing an overall loss to Irish citizens of €1,127,972.

The business community are frequently targeted by fraudsters using stolen or compromised credit cards, bank accounts or payments, in what is called Card Not Present Fraud. Businesses who are victims of this fraud will suffer losses under the 'charge back' process.

In the first 10 months of 2020, 346 Card Not Present Frauds have been reported to An Garda Síochána in Ireland 2020 to date, representing an average loss of €1,083 or a total of €374,751.

As we enter this busy season, consumers and business will be particularly active online and An Garda Síochána and Europol advise consumers to follow the golden rules for online shopping.

1. Buy from trusted sources
2. Understand risk and think twice before purchasing
3. Check the seller's reviews and ratings
4. Ensure data transfer is secure
5. Save all documents related to online purchases
6. If you don't make a purchase, don't leave identity or card details behind
7. Check the website payment security
8. Never send card details by email, text or other messaging methods
9. Don't send money to someone you don't know - check first
10. Use credit cards when purchasing online

Thermophilic bacteria

Thermophilic bacteria

These bacteria are heat resistant organisms that survive pasteurisation. Such bacteria carryover from raw-milk into finished dairy products negatively impacting upon quality and shelf-life.

Silage, faeces, animal bedding and soil contain large numbers of thermophilic bacteria and are the most important primary sources of these organisms in raw-milk. Poorly cleaned and sanitised milking equipment is a critical secondary source of contamination as milk residues provide an ideal medium for thermophilic bacterial growth. The following recommendations should be observed to achieve low thermophilic bacteria counts:

Clean Cows

Bedding areas, farm roadways and holding-yards must be kept clean at all times to avoid udder contamination. Pre-foam' udders and teats prior to milking with potable water to remove faeces, soil, traces of bedding and dust. Ensure that the udder and teats are thoroughly dried with

a disposable towel prior to attaching the machine.

Clean Milking-Equipment

Check rubber-ware for cracking and excessive wear on a monthly basis and replace all rubber-ware on an annual basis. Liners should be replaced every six months. Service the milking-plant annually and ensure that the milk-line flow dynamics are effective for proper washing.

Rinse the milking-plant prior to and after the main wash cycle with adequate amounts of rinse water (14 litres per unit). Use an approved detergent/detergent-steriliser as per manufacturers' instructions. Ensure that the milk-plant is hot-washed twice a week at a minimum. Descale the milking-plant twice weekly at a minimum and more often in hard-water areas to prevent milkstone formation with an approved milkstone descaler. Observe manufacturers' instructions as regards hot-water temperatures and concentration rates.

The All Ireland Pollinator Plan 2020

While most people are aware that there were several additional requirements to the 2020 derogation applications, a little-known additional biodiversity measure was the requirement for all derogation farmers to adopt at least one measure from the below list to encourage pollinators:

1. If trimming hedges leave at least 1 Whitethorn/Blackthorn tree within each hedgerow uncut,
2. Maintain hedgerows on a minimum 3-year cycle (rather than annually to increase flowering and fruiting),
3. Trim in rotation rather than trimming the entire farm in one year i.e. cut a third of hedgerows in year 1, a third in year 2 and the remaining third in year 3.

This regulation commenced last January so all derogation farmers are expected to carry out this action this year. The measure chosen must be captured in the submitted Nutrient Management Plan. Remember: Hedgerow maintenance is allowed only during the period 31st August to the 1st March. Most birds nest above 2 meters height so when cutting hedges, cut in an 'A' shape but trim as high as possible. Very young hedges need lower trimming to thicken at the base and mature hedges need side trimming only.

New Regulations on Farm Roadways & Waters

Farm roadways are an essential piece of infrastructure on most livestock farms and in particular dairy farms must pay particular attention to roads, due to the distance cows move to and from the parlour. Roads help farmers achieve high animal performance from pasture-based systems by facilitating grassland/paddock management. However new Nitrates rules coming in from the 1st January 2021 states

"there shall be no direct runoff of soiled water from farm roadways to water from 1st January 2021. The occupier of a holding shall comply with any specifications for farm roadways specified by the Minister of agriculture, Food and the Marine pursuant to this requirement"

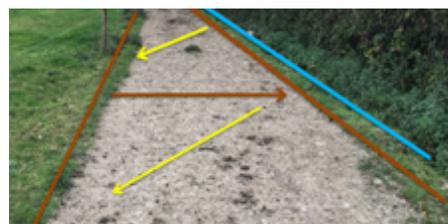
The aim of the measure is to prevent runoff of sediment and nutrients from farm roadways to waters thereby protecting and improving the water quality.

This applies to:

- a) **All farmers** who have farm roadways adjoining watercourses, rivers, drains, lakes, etc. features that can convey water (including features that carry no water for part of the year).
- b) Farm roadways that are adjacent to; or cross any watercourse (even if it is dry for part of the year), stream or larger channel.
- c) All roadways used for cows, cattle, sheep, machinery and roadways on tillage farms.

Solutions:

- Slope road to field
- Remove clay on field side to allow flow off road
- Use clay removed from field side to build up bund on waters side
- Widen the roadway to create room for the clay bund
- Fence to keep animals off the clay bund
- Facility to discharge trapped water onto field
- If the roadway is relatively flat creating a cross fall into the field should be done



Ten key points to consider:

What are the options to prevent direct discharge from farm roadways to waters?

1. Cambering the roadway away from the stream/ drain using a cross fall of 1: 25. Thus diverting the run off towards the field / paddock. (Figure 1) below:

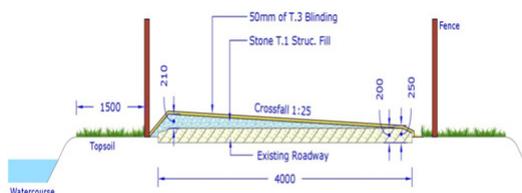


Figure 1- Farm Roadway resurfaced with T.1 Struct. fill and dust to a 1:25 crossfall away from stream

2. Existing farm roadways running beside a watercourse that are already fenced do not require the above buffer margin of 1.5 meters. A good camber away from the watercourse is still required.
3. All new roads installed must be 1.5m back from the top of the bank from watercourse/drain- more information on this is available on the DAFM website in Farm Roadway Specification S199.
4. For farm roads on slopes "Divide and conquer" - install regular diversion ramps to divert the roadway runoff into the adjacent paddock/fields. This will have the effect of reducing the volume of runoff at the end of the roadway before it crosses the stream.
5. Where the land is higher than the roadway it may be necessary to install a clay bund beside the roadway to protect the watercourse/ drain running alongside the road. The runoff needs to be channelled to a point where it can be diverted away from the watercourse to a paddock.
6. In most instances, the edges of roads build up a natural clay bank/ bund, which should be scraped along the edge of adjoining fields to let run-off go into the field thus reducing the volume going towards watercourse/drain. In some instances when cleaning the edge of the road on the field side this material could be used to create a clay bund between the road and the waters.
7. Relocate the farm roadway - in some situations, the best solution may be to move the farm roadway away from the stream / drain. This may sound like drastic action but it may give rise to added benefits, apart from better protection of water, this could improve paddock access and improved overall design of the paddock layout.
8. Moving paddock access >5m from watercourse/drain is also recommended to reduce the possibility of any sediment/nutrient entering watercourse/drain.
9. Engineered solutions - where the runoff cannot be prevented from heading to a stream / drain; it may be necessary to construct a clay lined settlement/percolation area to collect the run off, allowing the solids to be trapped and to discharge the remainder of the runoff via a percolation area. Any nutrients that are in the runoff water; entering the percolation area will be taken up by the grass plant in a similar way to a septic tank percolation system.
10. A plan for all the roads on the farm needs to be put in place that may contain several of the options in this article including diversion ramps, re-cambering roads, clay banks/bunds and settlement areas

Summary

The runoff issues from roadways are extremely variable from farm to farm. The variables are soil type, stream / drain density on the farm, rainfall levels, slope and topography, roadway condition, herd size, frequency of road use, machinery traffic and residency time of animals on the roadway etc. All these variables must be taken into account when you are considering a solution to preventing runoff of sediment and nutrients to water.

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For further information or advice on any subjects or products mentioned in this newsletter

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