O TERRA Mineral Range & Dosing Systems

Healthier animals
Boost farm profits
Reduce labour & save time





We continue to innovate to bring the best solutions to all our farmers.

elcome to the latest edition of our TERRA NutriTECH dairy and beef product brochure. TERRA NutriTECH is a family business based in Moone, Co. Kildare, Ireland and has been supplying leading products and technologies to farmers in Ireland and abroad since 2013.

TERRA NutriTECH's ethos is to bring precision to farming, this helps make animals healthier and life easier on the farm.

TERRA NutriTECH works hard to ensure all products are manufactured to the highest standards and quality to ensure your animals get the minerals they need, when they need them.

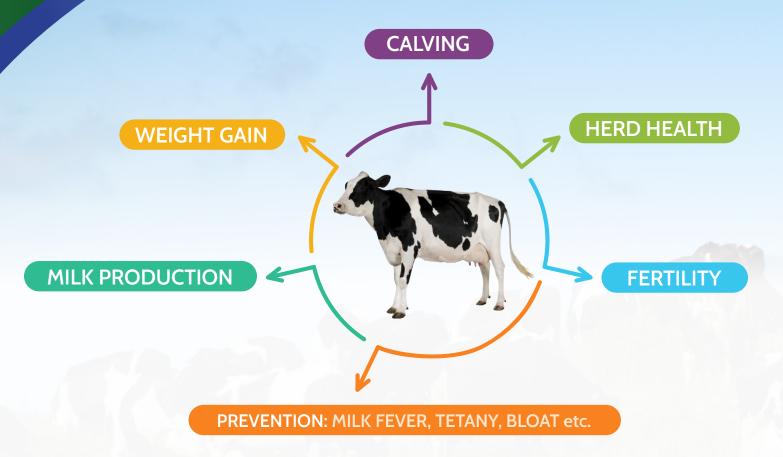
We would like to thank all our customers for choosing to use TERRA NutriTECH products, and we will continue to innovate to bring the best solutions to all our farmers going forward.





Photo credit: Lorraine O'Sullivan

MINERALS ARE ESSENTIAL IN COWS



BENEFITS OF USING TERRA NutriTECH ON-FARM



It's like having an extra pair of hands on-farm everyday.

K. Doyle Co. Wexford



Every herd has a daily mineral requirement based on:

- basic metabolic need
- production level requirements
- stage of breeding cycle
- and external factors such as weather, soil, lockup etc.

"At TERRA NutriTECH we believe in science, we use analysis of bloods, forage, milk and combine this with herd history to determine your cows mineral needs."

WHAT COWS NEED

HERD HEALTH

- What mineral issues have been seen in the herd historically?
- What health issues are common on farm e.g. calving,fertility, milk fever, bloat? etc.
- Are there external factors such as soil type, mineral antagonism, water quality which can influence availability of minerals?

FEED PROFILE

Where are cows currently getting mineral nutrition?

- Grass, forage and silage
- Supplementary feeds
- Boluses, licks or mineral packs
 - Is this too little or too much?

FEED PROFILE



MINERAL MANUFACTURING NALYSIS & ORMULATION

MINERAL MANUFACTURING

- TERRA NutriTECH has a state of the art production facility
- TERRA NutriTECH can manufacture custom mineral blends



ANALYSIS & FORMULATION

- Blood mineral status of herd
- Establish herd benchmark
- Using predicted herd requirements formulate appropriate mineral blend
- Ongoing analysis to monitor

DELIVER PRECISELY WHAT THE HERD NEEDS EACH DAY

KEY MINERALS CAN BE DOSED SEPARATELY

PRECISE / SCIENCE-BASED MINERAL NUTRITION LEADS TO BETTER HERD HEALTH

Minerals can be customised to suit farm requirements.



Peace of mind knowing that my herd are getting the correct minerals at all times

> J. Downey Co. Kilkenny

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REDUCE CALVING **ISSUES**

BUY ONLINE www.terranutritech.com

OR CALL (087) 708 6714

I have no need for any other minerals and have better results with less issues using liquid minerals

Which has

B. Cunningham, Co. Galway



10g/hd/d

OPIS OR ORBVIE

Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

CALVING PLUS

A blend of minerals to prepare the cow and calf for a healthy birth.

Benefits:

- Less calving issues
 Less retained cleanings
 Healthier calf
 Easy transition to milking
- 🖌 🖌 Faster & easier calvings
- Set cow up for better fertility

When to use:

During the dry cow periods 8 - 10 weeks pre-calvings. Used with Calving Magnesium.

Ingredients:

Copper / Selenium / Zinc / Vitamin A / Vitamin D / Vitamin E / Cobalt



USE WITH:

USE WITH:



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

CALVING MAGNESIUM

Special blend for cows pre-calving to help aid cow and calf.

Benefits:

🖋 Reduces milk fever

🖉 Reduces retained cleanings

- 🖌 Improved milk yield
- 🖉 Quicker, easier calving
- Alter rates to suit conditions with Terra Dosing Systems

When to use:

During the dry cow periods 8 - 10 weeks pre-calvings. Used with Calving Plus.

Ingredients:

Magnesium / Iodine

Minerals can be customised to suit farm requirements.

> I have gone from having a big issue every year with milk fever to having only one case in 300 cows this year.

> > S. Phelan, Co. Cork





50-100g/hd/d

USE WITH:



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

EASY CALVE

Used in the final week before calving to reduce milk fever and have easier calvings.

Benefits:

\checkmark	Reduces milk fever
\checkmark	Reduces retained cleanings
\checkmark	Quicker, easier calving
\checkmark	Healthier calves
\checkmark	Set cow up for better fertility
\checkmark	Reduces displaced abomasum

When to use:

Up to 1 week before cow calves in close up calving pens. Used with Calving Plus

Ingredients:

Magnesium / Selenium / Iodine

PRE CALVER WITH MAGNESIUM

All in one blend to prepare cow and calf for a healthier birth.

Benefits:

- Less milk fever
 Less retained cleanings
 - Healthier calves
 - Easy transition to milking
 - 🖌 Faster calvings
 - Sets cow up for better fertility
 - Reduced displaced abomasum
- Reduced vet and medicine fees

When to use:

8 - 10 weeks pre-calving. For use with 'ORBVIE' Dosing System.

Copper / Selenium / Zinc / Vitamin A , D , E / Cobalt /

Ingredients:

Magnesium / lodine

AVAILABLE IN:





150g/hd/d

USE WITH:



Dose troughs manually or through Terra ORBVIE Dosing System. Full details see Pg: (42 - 45) Minerals can be customised to suit farm requirements.

> My vet and medicine bills are down considerably

> > B. Flood, Co. Wexford







USE WITH:



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

TRANSITION IMMUNITY BOOST

Used in herds to help increase cow and calf immunity during calving season.

Benefits:

- Helps reduce mycoplasma Helps reduce metritis
- Helps reduce mastitls
- Improved immunity
- Maximise milk production
- Increases disease resistance, feed efficiency and animal performance.

When to use:

For 30 days pre and post calving.

Ingredients:

Blend of plant extracts





15g/hd/d

HI-IODINE

Used to boost iodine levels in the cow and calf.

Benefits:

Stronger calves Easier calvings Better immunity Less stress on cow and calf Better fertility Less embryo loss

When to use:

4 - 8 weeks pre-calving and breeding.

Ingredients:

lodine





Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

INCREASE COW FERTILITY



I have healthier cows that go back in calf easier.

> F. Leahy, Co. Limerick



10g/hd/d

OPIS OR ORBVIE

Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

FERTILITY MINERALS

Used to promote better conception and maximise fertility.

Benefits:

- Tighter calving intervals
 Less empty cows
 Improved heats
 Improved conception
 Less embryonic loss
- 🖌 Better animal performance

When to use:

For 6 - 8 weeks pre and post breeding for use with fertility Magnesium and Iodine.

Ingredients:

Copper / Selenium / Zinc / Vitamin E / Cobalt





USE WITH:

USE WITH:



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

HI-PHOS FERTILITY

Used to promote better fertility for phosphorus deficient diets.

Benefits:

Tighter calving intervals
 Less empty cows
 Improved heats
 Improved conception
 Less embryonic loss
 Better animal performance

When to use:

6 - 8 weeks pre and post breeding for use with Fertility Magnesium and Iodine. For diets lacking Phosphorus or with Pica symptoms.

Ingredients:

Copper / Selenium / Cobalt / Zinc / Phosphorus

Minerals can be customised to suit farm requirements.

> I haven't had any grass tetany in years and now I have freedom about how much meal I feed.

> > G. Ryan, Co. Tipperary







50-100g/hd/d

USE WITH:

OPIS OR ORBVIE

Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

MAGNESIUM

Used for the prevention of tetany.

Benefits:

Helps prevent tetany
 Promotes better milk production
 Healthier cows
 Better mineral mobilisation

When to use:

In time of high risk of grass tetany or stress.

Ingredients:

Magnesium

AVAILABLE IN:





125-150g/hd/d

USE WITH:



Dose troughs manually or through Terra ORBVIE Dosing System. Full details see Pg: (42 - 45)

FERTILITY MAGNESIUM

Used to promote conception and maximise fertility while reducing tetany risk.

Benefits:

- Less empty cows
- 🖌 Improved heats
- 🖌 Less embrionic loss
- 🖌 Tighter calving intervals
- 🖌 Improved conception
- 🖌 Less tetany

When to use:

6 - 8 weeks pre & post calving. For use with 'ORBVIE' Dosing System.

Ingredients:

Magnesium / Iodine / Copper / Selenium / Cobalt / Zinc / Vitamin E

REDUCE MILK UREA



BLOAT

PHOSPHORUS

WEBSHOP

LIQUID MINERALS

MAGNESIUM



Using Nitrobond has helped me stop embryonic loss and reduce my empty rate by over 50%.

> J. O'Reilly, Co. Offaly





Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

NITROBOND

Used to promote better conception and reduce milk urea in periods of high grass growth.

Benefits:

- Increase milk solids
 Reduce embryonic loss
 Lower urea levels in blood and milk
 Improved fertility
 Better energy conversion
- 🖌 Less ammonia and nitrogen excreted

When to use:

During breeding for herds with high milk urea.

Ingredients:

Natural plant extract

FERTILITY

We asked farmers if the TERRA NutriTECH System has reduced calving issues in their herd.

Calving issues
reduced on
79%
of farmsSignificantly reduced33%Keduced46%No change20%Increased1%

*Stats taken from TERRA NutriTECH IFAC Customer Report 2020.

4 out 5 Farmers have reported improved or significantly improved fertility.

GOOD HOOF HEALTH

HIGH ZINC*

PREVENT LAME DEC - FSS SS

COW'S LOW IN ZINC LEADS TO SOFT HOOVES

> My hoof parer commented about how much better my cows hooves are since I started using TERRA NutriTECH Minerals.

> > D. Lynch, Co. Kildare







10g/hd/d

USE WITH:



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

YIELD AND HOOF SUPPORT

Used to support milking cows to enhance hoof health and support milk yield.

Benefits:

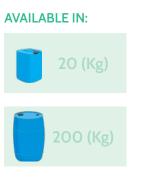
Reduces lameness
 Better milk production
 Boosts immunity
 Healthier animals
 Less sick cows

When to use:

During mid to late stage lactation.

Ingredients:

Copper / Selenium / Zinc / Vitamin E / Cobalt





10g/hd/d

HOOF CARE

To support hoof health and reduce lameness issues.

Benefits:

- Reduces lameness
 Hardens hooves
 Reduces costs
 Better herd performance
 - Less culling of cows

USE WITH:



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

When to use:

Use throughout the year to help reduce issues.

Ingredients:

Zinc / Biotin

Minerals can be customised to suit farm requirements.



Cow health post-calving is excellent.

R. Kavanagh, Co. Kildare



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

VITAMIN MIX

For high-yielding *indoor herds* to balance vitamin intake and boost performance.

Benefits:

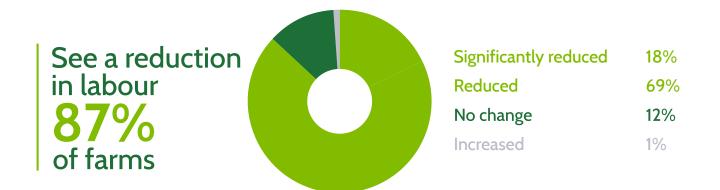
Improved milk yield
 Less calving issues
 Healthier calves
 Boosts immunity

When to use: All year round for high yielding indoor herds.

Ingredients:

Vitamin A / Vitamin D3 / Vitamin E

We asked farmers if the TERRA NutriTECH System has reduced labour on-farm.



*Stats taken from TERRA NutriTECH IFAC Customer Report 2020.

"Farmers need to use it to appreciate the amount of pressure it takes off, especially during calving and breeding"

REDUCE RISK



Peace of mind that the herd are always getting what they need.

> M. Ryan, Co. Cork



USE WITH:



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

PICA (Phosphorus)

Used to help reduce cows eating stones, clay etc.

Benefits:

- 🖌 Reduces PICA symptoms
- ళ Reduces health issues
- Reduces damage to roadways, ditches etc
- Prevent digestive problems and animal loss due to ingestion of foreign objects

When to use:

When the first symptoms of abnormal eating patterns are seen e.g. eating stones, soil, plastic, drinking urine etc.

Ingredients:

Phosphorus / Sodium



200 (Kg)



20g/hd/d

20 - 40g/hd/d

USE WITH:



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

BLOAT

Used to stop bloating symptoms occurring from lush grass and high clover pastures.

Benefits:

- 🖌 Reduces animal loss
- ؇ 🛛 Reduces labour
- 🖌 Improves milk yield
- 🖌 Supports herd health
- 🖌 Maximise grass utilisation

When to use:

For 48 hours before and during consumption of lush and high clover forage.

Ingredients:

Blend of Oils

FASTER RECOVERY

It helped reduce issues on the farm and has been beneficial to herd health. Overall I would highly recommend.

> J. O'Connell, Co. Meath



USE WITH:



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

IMMUNITY BOOST

Used to boost recovery in sick or weak animals. Helps increase immunity all year round.

Benefits:

Improved immunity
Increases disease resistance, feed efficiency and animal performance.
🧹 Helps reduce metritis
🧹 Helps reduce mastitls
🎻 Helps reduce mycoplasma
Maximise milk production

When to use:

During periods of stress, illness or for animals in recovery.

Ingredients:

Blend of plant extracts





OUR IMMUNITY BOOST HELPS COWS WITH HEALTH ISSUES SUCH AS:



STRESS FACTORS

INJURY

V UNDER PERFORMING

🗸 LAME OR SICK

HEALTHIER CALVES





I haven't seen crypto in a good number of years

Pre-weaning weights are excellent

No antibiotics have been given to any of the calves this year

> Using 'Aura Calf' my calves are definitely healthier. They are the best they have ever been.

> > P. O'Connell, Co. Limerick

PAGE 30

AURA CALF

Makes calf rearing easier. safer and more efficient.

POWERED BY:

a**o**ranta

Benefits:

\checkmark	Improves gut health
\checkmark	Reduce issues of scour
\checkmark	Improves nutrient absorption
\checkmark	Stimulates recovery after scour
\checkmark	Healthier and bigger calves
\checkmark	Reduce antibiotic usage



10g/hd/d

USE WITH:

AVAILABLE IN:



Dose troughs manually or through Terra ORBVIE Dosing System. Full details see Pg: (42 - 45)

When to use:

From calving up to 6 months old. For use with 'ORBVIE' Dosing System.

Ingredients:

Blend of plant extracts.







10g/hd/d

USE WITH:



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

THRIVE

A blend of minerals to help with growth, health and weight gain.

Benefits:

- Improved health Achieve target weights on time Maximise growth potential
 - Supports immunity development
 - Supports herd health
- Increases fertility

When to use:

For calves 2 months and older. All year round to maximise weight gain.

Ingredients:

Copper / Selenium / Iodine / Cobalt / Zinc / Vitamin E

BOOST YOUR CALVES

My calves are thriving better. and have no issues with scour.

> T. Stack, Co. Kerry

RUMEN GUARD

Helps prevent and minimise summer scour by improving young calves' gut health.

POWERED BY:

a**o**ranta

Benefits:

\checkmark	Reduce coccidia
\checkmark	Better weight gain
\checkmark	Boosts immunity
\checkmark	Less sick animals
\checkmark	Better rumen function
\checkmark	Better nutrient uptake

When to use:

From 30 days after calving up to 6 months old. For use with 'ORBVIE' Dosing System.

Ingredients:

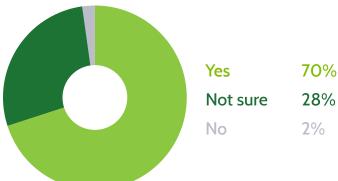
Blend of plant extracts.

We asked farmers if the health of their herd has improved since using the TERRA NutriTECH system.

10g/hd/d

70% have seen herd health improvements

out



*Stats taken from TERRA NutriTECH IFAC Customer Report 2020.

farms have seen an improvement in their overall herd health.







Dose troughs manually or through Terra ORBVIE Dosing System. Full details see Pg: (42 - 45)

BETTER WEIGHT GAIN



Don't see it as spending money on animals but investing in them and getting a good return on my investment

M. Broderick, Co. Cork





USE WITH:

OPIS OR ORBVIE

Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

BEEF FINISHER

A blend of minerals to maximise weight gain in finishing cattle while helping hoof health.

Benefits:

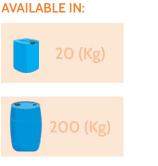
✓ Maximise weights
 ✓ Less health issues
 ✓ Maximise feed conversion
 ✓ Better hoof health
 ✓ Increased immunity

When to use:

For 90 days prior to slaughter.

Ingredients:

Copper / Zinc / Selenium / Vitamin E / Iodine / Cobalt





10g/hd/d

BEEF THRIVE

A blend to help with growth, health and weight gain.

Benefits:

- 🞸 Improved health
- 🖌 Achieve target weights on time
- 🖌 Maximise growth potential
- 🖌 Supports immunity development
- 🖉 Supports herd health

USE WITH:



Dose troughs manually or through Terra Dosing Systems. Full details see Pg: (36 - 45)

When to use:

For growing beef animals.

Ingredients: Copper / Selenium / Iodine / Cobalt / Zinc / Vitamin E

CHOOSE THE RIGHT DOSING SYSTEM FOR YOU

WHOLE FARM OPIS



DOSING SYSTEM Doses (One - Six) Mineral Blends

(Full details see Pg: 38 - 41)

Used to dose up to six mineral blends to all animals on-farm.

GO MOBILE ORBVIE BATTERY



DOSING SYSTEM Doses (One) Mineral Blend

(Full details see Pg: 42 - 43)

Used to dose one mineral blend into an individual trough.

1+ TROUGH ORBVIE MAINS



DOSING SYSTEM Doses (One) Mineral Blend

(Full details see Pg: 44-45)

Used to dose one mineral blend into 1+ troughs or entire water line.

ALL OUR SYSTEMS DOSE ACCURATELY BECAUSE THEY FOLLOW WATER CONSUMPTION PATTERNS

www.terranutritech.com



Use our app to precisely input animal numbers and dosage rates for best results. 'BE IN CONTROL OF YOUR HERD'



PRECISION MINERAL SYSTEMS

MINERALS THROUGH WATER

Overall the TERRA NutriTECH System helps my bottom line with less labour and better fertility

IFAC Customer Report 2020



- Change rates or animal numbers easily
- Tracks and reacts to water consumption

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WATER ALARMS

ELIMINATES HUMAN ERROR

MINERALS THROUGH FEED

The TERRA NutriTECH TMR System automates water & minerals for every mix. Super easy!

> S. Kelly Co. Tipperary

HERD SIZE (100+) **OPIS- FEED WAGON IN-FEED PRECISION MINERAL SYSTEMS USAGE: THROUGH FEED** 100+ Cows Easy Healthier Feeder wagon / TMR to install animals & use Water & power required close to mixing area HOW IT WORKS: Always in control Farm water supply in Water and minerals out into TMR feeder wagon Minerals in 0 0 **BENEFITS:** EXACT DOSING WHAT IT CAN DO: NO LABOUR Auto dose preset minerals NEVER RUN OUT OF PRODUCT Recipes for all animal groups EVEN MIXING OF MINERALS Set number of animals wagon is feeding • Quickly dispense water and minerals CONFIDENT THE CORRECT directly into feed as it is mixing MINERALS ARE FED EVERY DAY

- Dose one to six products for accuracy
- Eliminate waste

ELIMINATES HUMAN ERROR

GET BETTER RESULTS

IECHNOLOGY

MOVES WITH YOUR HERD

ORBVIE

1 x Mineral blend used

Scan QR code to download APP. Re-order Mineral





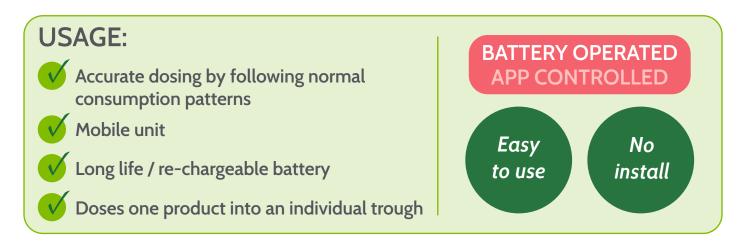
Long Life Battery

Simply drop it in the trough & it works away itself. I just get an alarm when it needs to be refilled.



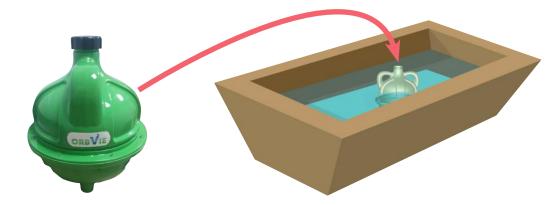


ALL HERD SIZES PRECISION MINERAL SYSTEMS



HOW IT WORKS:

Doses one product into an individual trough

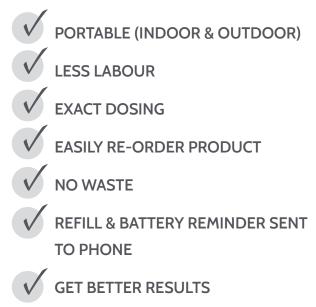


x 5 Litre Mobile Mineral Dispenser

WHAT IT CAN DO:

- Auto dose <u>one</u> mineral blend
- App controlled
- Set herd numbers and dosage rates
- Dosing follows pre-set water consumption pattern
- Easily filled
- Floats in water trough
- Suitable in all weathers

BENEFITS:



ACCURATE MINERAL DOSING

MINERALS & TECHNOLOGY 'The solution is in the water'

-

ECH

precision mineral system

Powered by: Untrinech

0

).

OrbVie Dosing System

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0

x 1 Pump dosing x 1 mineral blend

> It's great satisfaction knowing my herd are always getting the minerals they require.

> > B. Byrne Co. Meath



ALL HERD SIZES PRECISION MINERAL SYSTEMS



SYSTEMS / FAQ



TERRA NutriTECH can provide minerals for use throughout the year and to address specific issues on farm. These minerals can be fed by hand dosing troughs or using TERRA NutriTECH dosing technology.

To decide which system suits your farm please see the table below:

	OrbVie Mobile	OrbVie Mains (Water System)	OPIS Controller
Herd Size	÷ .÷	÷.	100+
Products dosed	-	-	9
Dose multiple zones	ı	I	>
Rechargable / Mains	Rechargable	Mains 110v / 220v	Mains 110v / 220v
App Controlled	>	>	>
Remote Monitoring & Control	I	I	>
Dose grams/head/day	>	>	>
Dose single Trough	>	Single or multiple	Single or multiple
Dose through Water Line (multiple troughs)	I	√ (5.5 Bar max)	√ (10 Bar max)
Follow water consumption pattern	Pre-Set	Pre-Set	Monitors Waterflow
Indoor / Outdoor	Indoor / Outdoor	Indoor	Indoor / Outdoor





PRECISION MINERAL SYSTEMS



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f y 🛛 🕨