

THE ESSENTIALS 2021

The mission of the CCPA Group is to bring sustainable improvement to the competitiveness of its customers and livestock farmers.



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Mickaël Marcerou

Chairman of the CCPA Group

2021

A “Defining” Year

Defining because of the crises it has weathered: before the soaring cost of raw materials and supply difficulties, there was the health crisis.

Over and above the words that became our common currency during the pandemic (masks, precautionary measures, lockdowns, and so on) and the woes that it rained down on us (disease, isolation, stress, etc.), the CCPA Group was there throughout the crisis to support its members and customers with the enthusiasm and perseverance of each and every one of its staff, wherever on the planet they happened to be.

Defining for the climate with the publication of the latest report from the IPCC. Ambiguity is no longer possible. The urgency is everyone’s business: let’s change the way we do things in terms of consumption, work and even lifestyle.

CCPA offered its staff the opportunity to work from home on a large scale in 2020 and is increasingly committed to Corporate Social Responsibility.

For its customers, CCPA also uses the lever of innovation to come up with sustainable solutions that respect the environment, livestock and the farmer.

Defining through the Group’s organisational transformation, which was implemented immediately after the summer holidays in 2021.

Indeed, the Group’s new organisation provides the bedrock vital to the forwarding thinking we shall have to do in 2022 regarding the Strategic Action Plan. The development of innovation, the restructuring of processes and the push into international markets will be its major priorities and will benefit us all.

*Let's thank all the employees of the group who are also determined to ensure the smooth running of the business and to serve our customers!
Let us continue our commitment together, as we have done for almost 60 years now.*

Mickaël Marcerou

PROFILE

THE CCPA GROUP
TODAY

Key Figures

152.6 m€

Turnover

13.1 m€

EBITDA

10.2 m€

Net income

461

Members of staff

8

Subsidiaries

Active on four continents, the CCPA Group and its eight subsidiaries have combined expertise and innovation to become a trusted business partner in animal nutrition and health in no fewer than 40 countries.

Breakdown of consolidated turnover in 2021 by geographic area

38%

FRANCE



28%

IBERIAN
PENINSULA



17%

EMEA



3%

ASIA



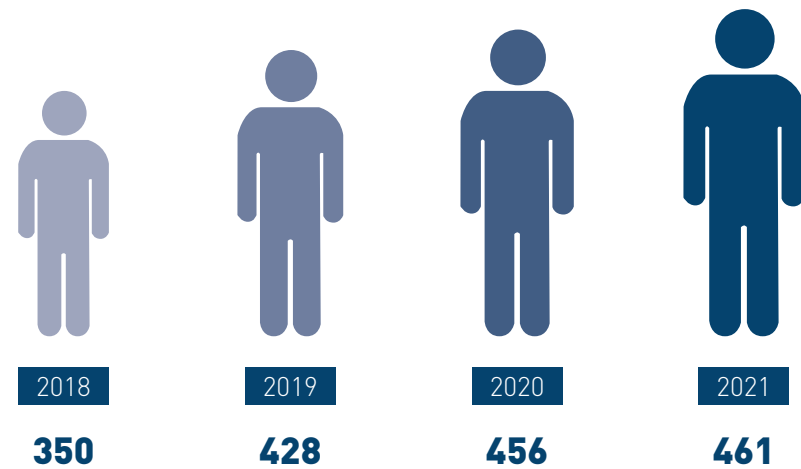
14%

AMERICAS



Human Capital

Human Capital lies at the heart of CCPA's future plans. The Women and Men who work for the Group are its most important asset. Its various teams drive its development and the success of its plans.



To support the changes to its organisation and its ambitions in terms of development, the CCPA Group is beefing up its workforce. Thirty or so new jobs will be available at its various sites in France and elsewhere and the workforce will rise to 500 salaried employees by the end of 2022.

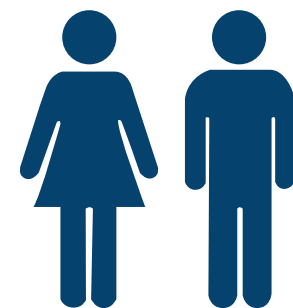
Gender Equality Index

In 2021, the Social and Economic Unit (UES) CCPA - DELTAVIT obtained a result of 80 as opposed to 78 in 2020.

Though we can congratulate ourselves on this 2-point improvement in our score, our ultimate objective is to be even more exemplary. To speed up progress, the Group's business is going to focus on two priorities:

- Encourage women to take on posts of greater responsibility, whether technical, commercial or managerial. Since 2021, 10 women (12.3% of the workforce) have moved up in the company.
- Devote a non-negligible proportion of the Mandatory Annual Negotiations budget to upgrading certain posts in which the average level of remuneration lags behind other functions, principally those occupied by women.

Seeing that this index continues to rise will be one of the priority issues of Group Human Resources Policy in the context of the Strategic Action Plan.



GENDER
EQUALITY INDEX

80 / 100

CCPA -
Deltavit
UES

We Care for our Values



CREATIVITY

Think outside the box to invent new nutritional solutions and new farming techniques and services to help the livestock industry to move forward.



AMBITION

Further expand our intelligence on animal nutrition. Develop competitive, innovative solutions and services and deploy them as widely as possible.



RESPECT

Acting together, respecting people, animals, the environment and our business partners within the framework of a responsible corporate policy.



EFFICACY

Endeavour to find effective solutions in all fields of action, which have been tried and tested both technically and economically. This is in the DNA of the CCPA Group.

A new governance model, more committed, more sustainable

In the course of 2021, the Board of Directors, guided by Mickaël Marcerou, did some serious thinking about overhauling governance at CCPA. This process, which began in March, enabled us to establish a new governance scheme in September 2021, which was put into practice at the beginning of 2022.

The issues facing this new governance scheme are based on:

- Closer proximity of our staff
- Collegial and collaborative governance with a process to help new board members settle into the company
- An ability to define future strategy for the CCPA Group
- And policy governance in the subsidiaries

The new governance scheme is run by three bodies: the Board of Directors, two Commissions (HR and Finance, Audit and Risk) and three Strategic Business Sector Orientation Committees (SOC).

These governance bodies have been set up with a common purpose based on a cooperative mode, open, dynamic discussion, rapid decision-making and Group development and growth objectives.

THE NEW GOVERNANCE SCHEME IS RUN BY THREE BODIES



The Board of Directors

Chaired by Mickaël Marcerou, livestock farmer and director of the Arterris Cooperative, CCPA's Board of Directors appoints the General Manager of the Group and discusses major strategic and financial orientations prior to their implementation by the Executive Committee.



Mickaël Marcerou
Director of ARTERRIS and
Chairman of CCPA



Vincent Caillon
Director of TERRENA



Denis Le Moine
Director of EUREDEN



Guy Calmejane
Director of ALTITUDE



Armel Lesaffre
Director of UNEAL



Hervé Solignac
Director of UNICOR



Cédric Faure
Representative of the CCPA Group's
Collective Employee Shareholding
Plan (FCPE)

Since 1994, CCPA's staff members have had a stake in the Group's equity and are represented by an elected employee who has a seat on the Board of Directors as a Director in his or her own right.

To handle its development, the CCPA Group overhauled its organisation in 2021

The Group now also has the backing of a Research & Innovation Division, a brand portfolio organised around three singular yet complementary sectors, aided by a range of Central Support Functions and beefed up sales teams in France and overseas. The aim of this overhaul is to endow the Group with all of the assets it will need to define and deploy the forthcoming Strategic Plan.

INNOVATION AS GROWTH DYNAMIC

This reorganisation gave Management an opportunity to put Research and Innovation back in its rightful place within the Group, which is the very reason the CCPA Union of Cooperatives was created in the first place in 1966. The founding idea at that time was to create a service firm to provide effective support and assistance with the extraordinary changes facing livestock farming.

The key central role of innovation has been reasserted through the creation of a Research & Innovation Division at a time when the livestock sector is still going through major changes in a world constantly on the move and increasingly open to international business.

CENTRAL FUNCTIONS REVISITED

Several new appointments were announced to bolster the added value contribution of the Divisions and the Central Support Functions: process optimisation, services aimed at other divisions and subsidiaries, digitalisation, etc.

An Administrative and Financial Division was also created, as was a new Human Resources Division.

THREE BUSINESS UNITS FOR A COMPREHENSIVE OFFER

The CCPA Group's three business units share a common culture, offering customers a 360° overview of animal health and nutrition:

- The first of these Business Units, therefore, our historic roles of Feed Solutions & Services, provides customers with products and services, alongside recognised zootechnical and nutritional expertise.

- The second Business Unit, under the Deltavit banner, encapsulates the businesses of design, production and sales of Farm Specialities: feed supplements, mineral and lick blocks.
- The third Business Unit, Functional Ingredients under the Novation brand, focuses on the manufacture and marketing of additives and specific raw materials.

BETTER DEFINITION OF SALES AREAS

To support the activities and development of the Group's three business units, CCPA now relies on a sales organisation divided up into geographical areas to take into account any market specificities by adapting its offers to local needs and issues.

France, because it's the historic base of the parent company and the Group's legal structure, has set up specialised sales forces according to business activities.

Alongside the Iberian Peninsula, which is already well represented, EMEA (Europe, Middle East, Africa), Asia and the Americas continue to be territories that provide promising sources of new business, in which the Group has clearly shown a strong spirit of expansion.

For the Group, this means establishing optimal growth conditions in order to propose a richer, more coherent offer aimed at local actors in animal nutrition, based on constructive solutions that combine performance, competitiveness and sustainability.

The Executive Committee

With the establishment of the new organisation in autumn 2021, a new Executive Committee was also put together around the Group's Central Functions and three Business Units.

Central Functions



Olivier Poli
General Manager



Edwige Thomassin
Cooperative Affairs
Manager



Jean-François Labarre
Deputy General Manager



Maëg Videau
Administrative and
Financial Director



Catherine Barbier
Human Resources
Director



Gaël Le Goc
Communication
Manager



Bernard Cesbron
Industrial Director



Janic Gouhier
Supply Chain Director



Arnaud Wiczorek
Research and Innovation
Director

The Business Units



Émilien Dupuis
Feed Solutions & Services
Director



Clément Le Ricousse
Farm Specialities
Director



Andrés Ortiz
Functional Ingredients
Director

CONSOLIDATING
OUR
DEVELOPMENT

| **ACTIVITIES**

3 activities for a 360-degree expertise in animal nutrition and health

Breakdown of turnover by business



Un monde, Un groupe • *One world, One group*

A brief video
overview
of the Group's
companies



Fresh impetus for premixes and Feed Solutions

In a 2021 still deeply affected by the COVID-19 health crisis (rising tensions in the cost of raw materials, transport, energy, etc.), the Feed Solutions and Services business managed to do quite well, with some encouraging successes in sales in certain areas.

FRANCE

The domestic feed market is again down (-1.3%), impacted by numerous farm closures in pig production, as well as a reduction in cattle herds and a withdrawal of broilers from production (turkeys, guinea fowls and palmipeds).

Despite this context, CCPA maintained its overall position in the domestic market, with varying changes depending on species.

- **Poultry:** A developing market for CCPA, "driven" by layers and breeders, and also the recovery of positions in broilers. Also noteworthy is the development of our organic business, which continues to expand, even though the market is tougher for 2022.
- **Pigs:** After several years of significant growth, our business is down. Pig prices cannot absorb the rise in feed prices and are causing a scissor effect on farms.

- **Ruminants:** The premix business is trailing in a difficult beef cattle market and a tense economic climate, causing a fall in the rate of incorporation of certain premixes. However, the volume of Vivactiv™ Feed Solutions is developing, reflecting our performance on the market!

The end of 2021 and the beginning of 2022 were marked by significant new events which will impact the markets throughout 2022: significant and unheard-of rise in the price of raw materials and energy affecting farm and sector profitability, development of bird flu leaving the poultry sector facing an unprecedented health crisis, continuing pig farm closures, etc.

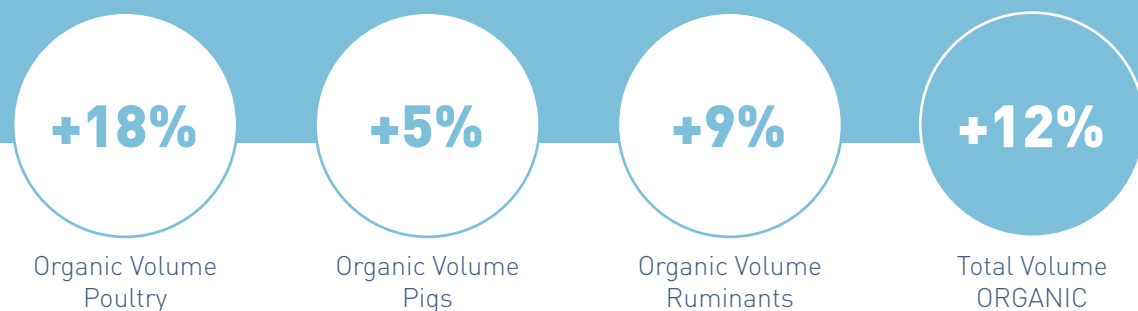
Despite the context, which looks like being difficult, CCPA continues its active search for more encouraging signs!

CCPA leader in organic

In 2021, CCPA continued its development in France and the European Union and Switzerland.

To respond to the needs of livestock farms with high nutritional value feeds, in line with the requirements of organic farming, CCPA offers a wide range of products in Feed Solutions and Farm Specialities for all species.

Tonnage based on the volume of premixes and Feed Solutions



EMEA

Our business in the EMEA area continues to develop with the same impetus as the previous year.

RUSSIA

The roll-out of monogastric Feed Solutions continues, with the same positive trend as 2020. Thanks to the support of technical services, our positions were strengthened with the country's biggest poultry and pig integrators. In ruminants, our premix and Vivactiv™ business is increasing thanks to the technical support given to farmers by our local distributor, who pairs product sales with Chorus® formulation software.

MOROCCO

In a particularly tense raw materials context, the Vivactiv™ range has shown strong development thanks to its approach to formulation that improves raw materials development. Morocco is also becoming

the leading user export country of Vivactiv™ and has become one of the CCPA Group's top 5 customers.

SWITZERLAND

CCPA continues its growth and business development in all three species, as well as in organic business.

A new business has started up Austria, thanks to the sales and technical work that has enabled us to roll out on a significant scale in that country.

Despite a difficult context in 2021 in terms of health and the economy, we maintained a good level of business in a number of countries, such as Tunisia, Italy and Belgium... However, we are hoping for a roll-out on a larger scale in 2022 with the arrival of new staff to bolster our sales team.

IBERIAN PENINSULA

Led by the DIN and Nutega teams, our Feed business in the Iberian Peninsula continued to grow in 2021.

PORTUGAL

Since 2017, our business in Portugal has enjoyed dynamic growth thanks to a development strategy based on our presence in the field and the nutrition services given to Portuguese farmers. The pig business and, more particularly, our piglet feeds, make a strong contribution to this growth. Our poultry business is also up in a sector with a very limited number of actors.

SPAIN

In Spain, the work done on the piglet offer has enabled us to gain market share. Work also began on the approach to major pig accounts which is expected to bear fruit in 2022.

The Vivactiv™ range is developing in ruminants, with good feedback from the field and a formulation approach that permits us to meet market expectations. Lastly, after a difficult 2020, our poultry business is picking up.

AMERICAS

Despite a difficult health and economic context, our business has developed in the area, driven by our poultry Feed Solutions.

COLOMBIA

The change of distributor in Colombia in 2020 is beginning to bear fruit. The first sales were made in 2021 after four years with no sales at all in this country.

CARIBBEAN & CENTRAL AMERICA

The recruitment of the new sales rep in the Caribbean and Central America has also provided good leverage. Panama, Costa Rica and Guatemala are becoming our most lucrative countries.

Countries like Peru and Ecuador continue to develop, with as much as 50% growth in Peru.

BRAZIL

The business year 2021 was trickier for Brazil. The reorganisation of the team augurs good things for 2022.

With the implementation of the new organisation and the appointment of a sales manager for the Americas (an area previously attached to the Iberian Peninsula), the objective is to step up tracking in this strategic part of the world and support its development.

ASIA

COVID-related travel and other restrictions, African swine fever and the replacement of part of the team have hampered our business in this area.

Despite the difficult context, Vietnam, our most significant country in terms of business in Asia, continued to develop, driven by monogastric Feed Solutions with Créa Advance in pigs and FeedStim in poultry. Ruminants continue to be our principal

business in this country where our solutions are not recognised on very large livestock farms.

Asia is an area with considerable development potential for the Group. The work undertaken in the 2nd half of 2021 on the distributors, the offer and the organisation of the teams, should help us regain our development impetus in 2022.

The CCPA Group develops its industrial tools

To support its innovation projects and continue to develop, the CCPA Group is upgrading its industrial plant at various production sites.



JANZÉ SITE

A new process has been designed to develop strategic technical ingredients based on our know-how in phytoexpertise.

In 2021, this business took an industrial turn with the construction of a new workshop that produces 800 kg per day.

The products manufactured with this technology are then incorporated in premixes or Feed Solutions.

SANTA COMBA DÃO SITE

At DIN in Portugal, the automation process in the complete feed plant continues.

In addition, to step up the quantity of raw materials processed, fresh investments have been made, with the acquisition of another pellet machine and small silo structures.

Two additional people have also been hired in response to the increase in production volume.



Flagship Feed Solutions 2021!

Vivactiv
Committed to better production

WE ALL STAND TO BENEFIT!

Lower feed costs, digestive safety, a reduction in waste and in the carbon footprint.

Because we only have one planet, the VIVACTIV® range, a natural nutritional solution for ruminants, helps to feed people better by producing more milk and meat while limiting waste of resources and minimising the environmental footprint.

VIVACTIV® has demonstrated, through trials, improved utilisation of raw materials and fodder for more profitable farming.

www.ccpa.com

CCPA GROUP

PROactiv
Precision digestive security

Taking the right measures for the digestive security of poultry starts with tailor-made solutions

ProActiv® Precision solutions for the digestive security of poultry adapted to each breeding context!

As the physiologies of poultry vary and expectations regarding demedication evolve, the CCPA group offers the ProActiv® range, the result of its in-depth knowledge in animal demedication and phytoexpertise. Respectful and inspired by the physiology of poultry, ProActiv® nutritional solutions contribute to a beneficial intestinal microbiota. They thus support the improvement of production performance and animal comfort.

www.ccpa.com

CCPA GROUP

Deltavit is reorganising to step up its growth

2021 was a year of profound change in the Farm Specialities business in France and overseas. A new Business Unit was set up to host the full range of activities and a director was appointed to support and embody it. A new dynamic was therefore created thanks to the implementation of this new organisation.

FRANCE

Thanks to the commitment of the teams, DELTAVIT France business came in on target with its forecasts, despite part of 2021 still being deeply affected by the COVID crisis.

Implementation of all of the procedures at the Trégueux plant was finalised in 2021 and the volumes originally forecast exceeded.

Ruminant business continues to dominate in France and the teams are preparing to deal with any changes in the market regarding the environment and society in general. Other species are developing but still lagging behind what we might have expected from our export business.

EMEA

Overall business in Farm Specialities in the EMEA area is very good, with record turnover. This excellent result is clearly linked to our subsidiaries in the Czech Republic and Turkey.

TURKEY

CCPA Turkey continues to expand and grow. Thanks to the hard work of the local team, sales of Specialities and mineral feeds doubled compared with last year.

CZECH REPUBLIC

IFRAMIX kept up a very good tempo and improved on the previous year's result, especially in the development of sales of nutritional specialities and the distribution of mineral and lick blocks.

Direct sales and sales to distributors were maintained. In some countries like Switzerland, Jordan, Poland and Slovakia, developments compensated for the business shortfall in other countries, particularly Russia and Qatar.

IBERIAN PENINSULA

The Farm Specialities business has been developed in this area by DELTAVIT Spain, an entity founded in 2018.

Supported by a dedicated sales rep, business focuses on the mix of products used to combat red mites (Delta[®] Acariflash and Delta[®] Acaritec). Its sales activity stabilised in 2021 despite difficulties in the country's poultry market.

At the FIMA Trade Fair in Zaragoza, DELTAVIT Spain promoted the Group's ruminant and pig ranges. As a direct result of this fair, new development opportunities emerged and business deals hoped for in 2022 were confirmed.

AMERICAS

Mexico and Ecuador delivered some new projects in 2021 with the creation of new local partnerships.

BOLIVIA

Bolivia suffered the full impact of COVID on freight transport and, as a result, business came in below initial expectations.

BRAZIL

CCPA Brasil completed some important work on new business prospecting and presentation of innovative products and technologies from DELTAVIT to the market, the initial effects of which were observed in 2021 and will further develop in 2022.

ASIA

Asia, a lucrative area for Farm Specialities, continued its significant development. 2021 results are markedly up compared with 2020 and new deals struck hint at great things for 2022.

A market survey was also undertaken in 2021, providing a full analysis of the Farm Specialities market. The aim is to reach a better understanding of our potential future developments.

The team was also given a boost by the arrival of a new manager, a specialist in the Asian area for several years.



PRODUCTION OBJECTIVE 2021 ACHIEVED!

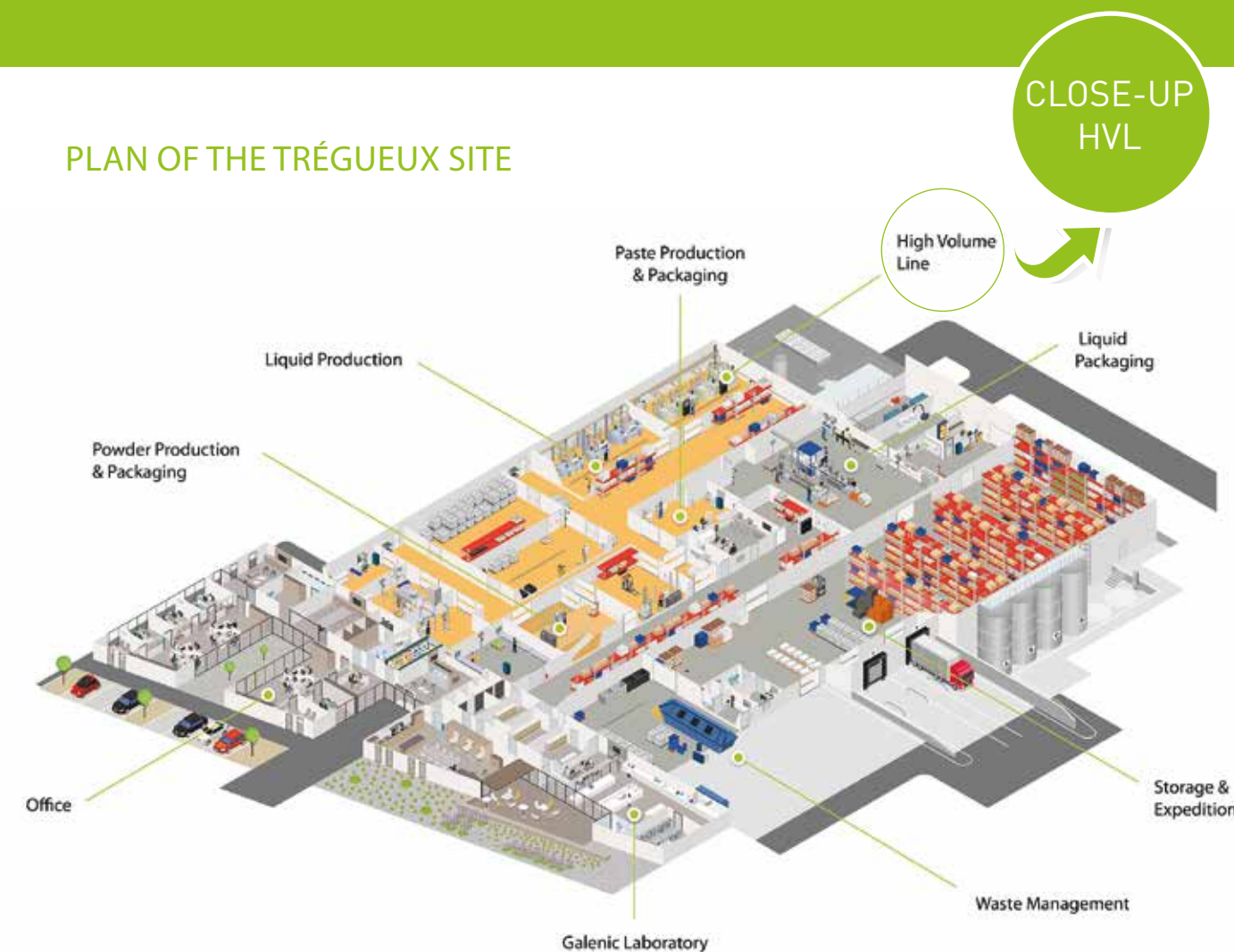
More than 1,500,000 litre-equivalents is what the teams at the Trégueux plant packaged throughout the year, exceeding the objective set at the start of the year.

Of the 15 production and packaging lines at the plant's disposal, the HVL, or High Volume Line, is dedicated to the production of liquid glucose precursors*. It can manufacture up to 10,000 litres of glucose precursors a day.

This line is used to meet our customers' needs (quantity, deadline, custom packaging) and optimise cost and production time, as well as ergonomics in the workplace.

* Glucose precursors: products distributed to ruminants, whose feed rations are energy-deficient, at the start of lactation. DELTAVIT proposes three glucose precursors: Delta[®] Propylene Glycol, Delta[®] Green and Delta[®] glycol.

PLAN OF THE TRÉGUEUX SITE



Novation: a year of transition...

The Functional Ingredients BU is the one that was hardest hit during the health crisis, suffering considerable repercussions, particularly in the Asia and Americas areas. Despite everything and thanks to the excellent synergy between the three BUs, some great successes also brought us a little cheer.

IBERIAN PENINSULA

The Iberian Peninsula continues to be Novation's best sales area, accounting for approximately 21% of turnover.

In Spain, Butirex C4, added to Nutega's premixes and concentrates, as well as to piglet feeds, is also sold directly to the end user to whom the sale of Nutega's customary products is not possible. Regardless, sales have remained stable in comparison with 2020.

In Portugal, DIN has increased its sales by 12%, mainly on biosafety products and thanks to good customer support.

AMERICAS

The Latin American market suffered greatly in 2021 owing to the COVID crisis, particularly Peru and Brazil where we work with partners who in turn work with major distributors.

A fine example of the synergy between our three Business Units: the Functional Ingredients BU embarked on a new collaboration with the distributor of the Feed Solutions BU in Ecuador and with Nutec in Mexico, adding Butirex C4 to their nutritional solutions.

New businesses were also launched in Bolivia and Uruguay, which will in turn be well placed to become potential distributors for the Feed Solutions BU.

ASIA

The effects of COVID and the practical ban on travel to the area considerably restricted business in Asia.

In addition, our Chinese distributor was affected by the departure of its sales team, which had a knock-on effect on our own business, of course. China represented a large proportion of our sales on the Asian continent.

In the course of 2021, Novation went ahead with the registration of several products, other than Butirex, in order to diversify its offer and propose a broader portfolio of product ranges to its distributors.

Thanks to various try-outs, we have also obtained some new distributors in regions where we were not particularly active.

The objective for 2022 is to return to 2020 sales levels. The teams are doing their utmost to achieve this: seeking out new markets and new distributors in countries where we do not yet have a commercial presence. In order to grow sales, the sales teams also propose new solutions to our current distributors, such as Camprotect, Polifam and custom acid mixes for feed and water.

An improved marketing approach to the needs of our prospective customers is also being fine-tuned to develop our reputation and thus help our teams to sell better.

BUTIREX C4 PRODUCTION CAPACITY X 2

Installation of the new Butirex C4 production line was completed in 2021. The reorganisation of the storage space for raw materials and finished products will also be undertaken in the course of 2022.

Investments to the tune of approximately 1.2 million euros will effectively double our production capacity from 3,000 to 6,000 tonnes and increase our storage capacity.

A NEW AQUACULTURE BUSINESS FOR NOVATION

This new business segment, housed at Novation in its implementation phase, presents a major challenge for the CCPA Group.

In phase with development, the job is done in close collaboration with the Group's R&I Division in order to decide on the best product solutions to address this market.

In this context, a person assigned specifically to aquaculture has also been hired to run these developments and launch sales of Butirex and Feed Solutions.

NOVATION
new action in nutrition

BIOSECURITY & ACIDIFICATION

- SALMOX**: Salmox is an Acidifying Premix to be used as strong preservative for the control of Salmonella and other bacterial contaminants.
 - Reduce the impact of raw material contamination
 - Maximize feed efficiency
- MOXID**: Moxid is an Acidifying Premix to be used as strong preservative for the control of fungi and yeast in contaminated raw materials and feed.
 - Reduce the impact of raw material contamination
 - Maximize feed efficiency
- FUNGI BACT**: Fungibact liquid, una premezcla acidificante con una acción conservante sinérgica contra bacterias, hongos y levaduras.
 - Reduce the impact of raw material contamination
 - Maximize feed efficiency
- NUTACID**: Nutacid is a Premix of volatile fatty acids (VFAs), VFA precursors and a blend of inorganic and organic acids, for its use in feeds.
 - Increase Feed digestion and absorption
 - Reduce economical losses due to intestinal disorders/problems
- NUTACID Acqua**: Nutacid Acqua MP is a Premix of volatile fatty acids (VFAs), VFA precursors and a blend of inorganic and organic acids, for its use in feeds and drinking water.
 - Increase Feed digestion and absorption
 - Reduce economical losses due to intestinal disorders/problems
- SINTOX**: Sintox Hepatoplus is a product designed to bind most of mycotoxins in raw materials and formulated feed, with detoxification effect on liver.
 - Minimize production losses due to mycotoxins contamination
 - Minimize production loss due to mycotoxicosis

Selection of suppliers

NIRS network

Quality system

- FAMI-QS** GMP+
- NOVATION** ISO 9001:2015

Technical field service

Animal welfare

Food safety

Butirex C4: Butirex C4 is a new development in butyrate protection able to promote maximum digestive efficiency and animal growth due to the INTESTINAL VILLI action.

- Ensure maximum intestinal development
- Maximize Feed efficiency

Polifam 3: Polifam 3 is a combination of Mediterranean plants with synergic biological activity on regulation of oxidative stress and intestinal physiology.

- Boost zoo-technical parameters
- Reduction of Feed cost Formulation
- Alternative for vit E

FATMIX: Fatmix is nutritional supplement based on essential Omega-3.

- High concentrated source of Omega-3 fatty acids
- Increase in fertility and viability of newborns

OREGAMIX: Oregamix 50 is a Premix of natural plant extracts for its use in feeds.

- Boost zoo-technical parameters
- Reduce economical losses due to intestinal disorders

FIBERACID: Fiberacid is the new generation of acidifiers that reduces the pH through all the intestinal tract in combination with functional fiber.

- Increase Feed digestion and absorption
- Reduce economical losses due to intestinal disorders

GLUKOSA: Glukosa is a glucogenic precursor for the prevention and control of toxemia or ketosis in dairy ruminants.

- Boost dairy production
- Reduce heat stress
- Reduce heat stress problems

Novation proposes a broader range of products to provide a better response to its customers' needs.

Artemis Laboratory: a year of change!

Artemis' business has been affected mainly by dealing with the health crisis and the renewal of its Board of Directors. These events did not prevent the laboratory from once again turning in an excellent performance with turnover up by 17.4% compared with 2020.

The Artemis Laboratory posted turnover of 4.3 m€, up by 3.6% on the provisional budget. This good result is heading in the right direction thanks mainly to external turnover (excluding shareholders) with a rise of 34.3% compared with 2020.

The very strong shifts in business experienced in 2020 related to the health crisis, first negative and then positive, were much less marked in 2021. But this does not mean that the pandemic had no effect on management of the business. Management of contact cases and positive tests, compliance with recommended precautionary measures, restricted or even non-existent travel in the second half, all of them punctuated the day-to-day rhythm of the laboratory teams.

It should also be noted that the Board of Directors of the Artemis Laboratory evolved in 2021. Presidency was transferred to the CCPA Group's new R&I Director after his appointment at the end of 2021 and, on that same date, a new General Manager was also appointed.

As for the laboratory's business, the future improvements that we started to glimpse at the end of 2020 have been confirmed, i.e.:

- Sales business heading in the right direction, especially with non-shareholding customers. The resumption of activity, market concentration and the significant successes of our Business Manager explain this positive trend.
- This positive impetus is also confirmed by the consolidation of our commercial partnership with a major customer.
- Lastly, the first tangible results from our LEAN Management* workshops have now become apparent. Our overall performance in terms of turnaround times for test results noticeably improved in 2021.

* Lean Management is a work management and organisation method that aims to improve the performance of a company and, more particularly, its production quality and profitability.



MANAGEMENT COMMITTEE



Arnaud Wiczorek
Chair



Matthieu Chatillon
General Manager



Christophe Ferey
Laboratory Manager

At last, time for the trade fairs to open their doors again!



Animal Tech
Brno, Czech Republic • September



Space
Rennes, France • September



Figan
Zaragoza, Spain • September



Sommet de l'Élevage
Clermont-Ferrand, France • October



LPN Congress
Miami, USA • October



VIV MEA
Abu Dhabi, United Arab Emirates • November

INNOVATING
TO
BUILD
THE FUTURE



INNOVATION

R&I

Innovation is more deeply rooted in the CCPA Group's DNA than ever before

A highlight of 2021 was the establishment of a new R&I organisation. The opportunity for Management to put Research and Innovation back in its rightful place in the Group, the very reason why the CCPA Union of Cooperatives was created in the first place back in 1966. The founding idea at that time was to create a service firm with enough clout in terms of pooled research resources to encourage the widespread circulation of innovation to all of its customers.



16
Scientific media



18
Published scientific articles



1
Patent granted in the USA

SCIENTIFIC MEDIA: CONSIDERABLE RECOGNITION OF THE WORK WE DO

2021 was a year of transition still affected by the pandemic and its consequences on our attendance at numerous international scientific events.

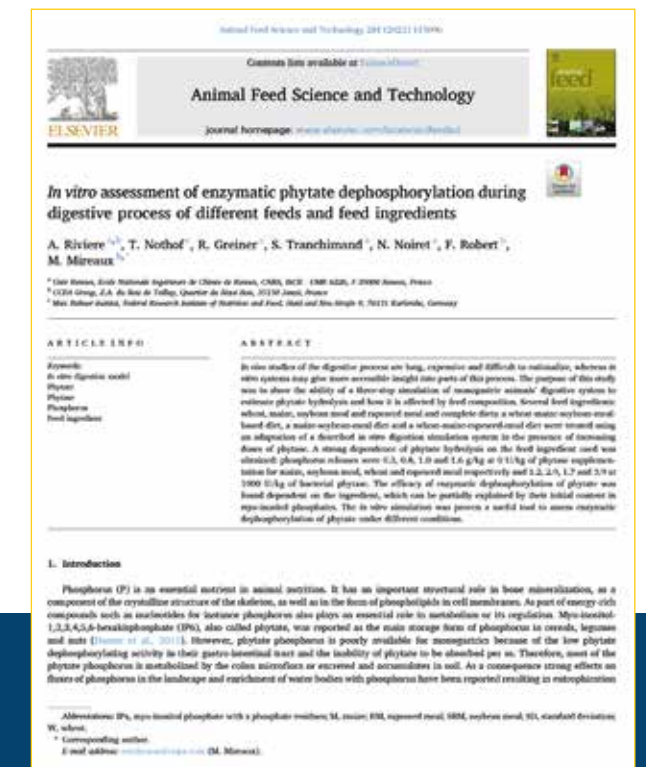
The CCPA Group was nonetheless able to pursue its Research and Innovation dynamic and reinvent itself by taking part in online events or organising webinars on particular themes.

CCPA's R&D team thus produced 16 media events (presentations, posters, etc.) at international conferences.

INTELLECTUAL PROPERTY: 1ST PATENT GRANTED IN THE USA

With the objective of supporting the international development of its business, CCPA has expedited the protection of its innovations by filing patent applications.

In August 2021, the first of the Group's patents on dairy production, relating to the use of *Scutellaria baicalensis*, was granted in the United States. This patent protects our product innovation, FeedStim® Dairy.



Phytase: in vitro evaluation and comparison now available

Development and internalisation at the Artémis Laboratory of an in vitro digestive simulation model to evaluate phytase efficiency. This model comes from an international CIFRE thesis undertaken by the CCPA R&D team in tandem with the German Max Rubner Institute and the Ecole Nationale Supérieure de Chimie in Rennes. It enables the evaluation of multiple parameters that cannot be studied in vivo and the reduction of the number of animals used in experimentation in vivo.

A dynamic partnership, a source of progress and innovation

Once again this year, the CCPA Group was backed up by its international scientific network and various research programmes to bolster its scientific expertise in response to the challenge of future issues. Close-up on two research partnerships in ruminant nutrition with Mercosur.

DAIRY COWS: UNIVERSITY IN URUGUAY

Uruguay is the world's seventh largest milk exporter. This country, which has around 3.5 million inhabitants, produces enough milk for more than 20 million people on only 5% of its territory.

Uruguay can call on high-end research teams in the dairy sector and possesses four experimental dairy stations, including EEMAC, an affiliate of the Veterinary Faculty and the University.

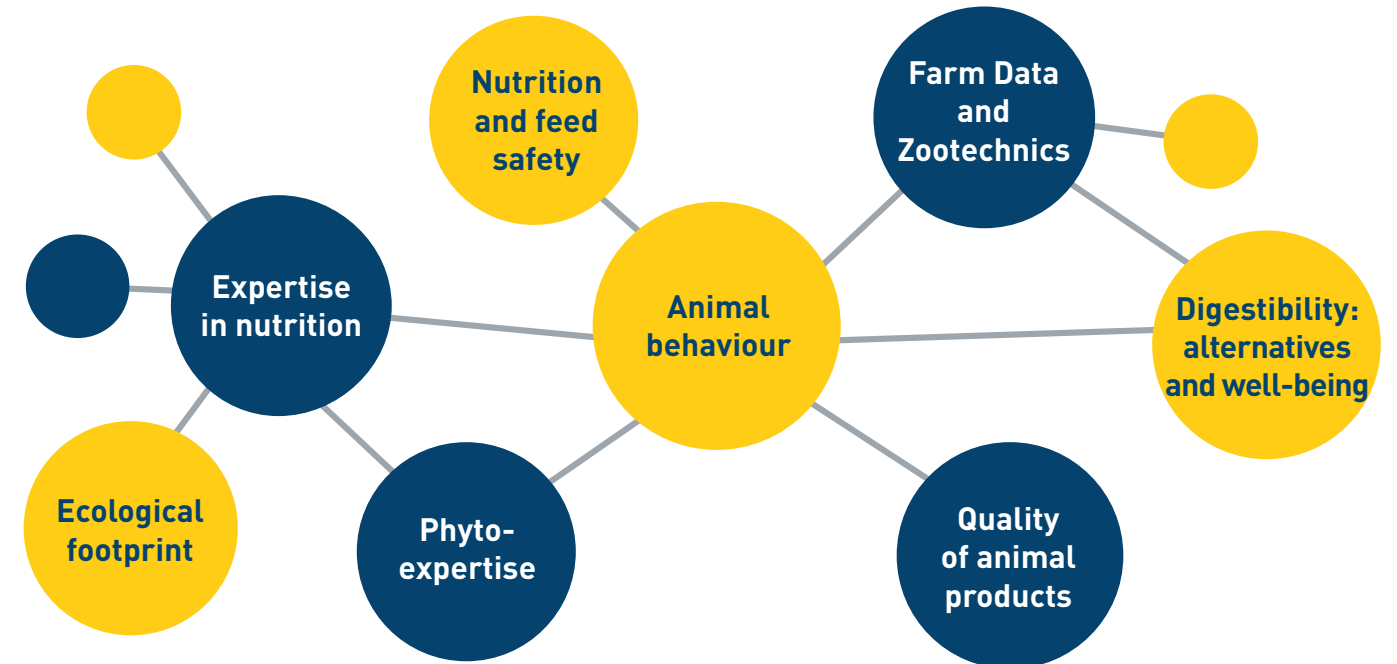
Since the end of 2020, several research groups have been associated with the programme initiated by CCPA on "Secondary metabolites in plants, feed efficiency, health, digestibility and environmental impact" in the pre-partum period and lactation in dairy cows.

BEEF CATTLE: FEDERAL INSTITUTE OF SANTA CATARINA, BRAZIL

The Brazilian cattle herd is the biggest in the world, representing 14.3% of the global herd, with 217 million head. It is also the world's leading meat exporter.

Research in Brazil concentrates on different production systems and livestock farming practices. The Federal Institute of de Santa Catarina has been working with CCPA since 2018. The current research programme evaluates the effects of secondary metabolites in plants on the growth, carcass specifications and ruminal and hepatic health of fattening livestock in order to meet the current needs of the beef cattle market.

8 research areas to anticipate the issues we may face in the future...



CONCLUSION OF THE ALIMCARCICOL PROGRAMME

Pig feed improves the quality of cold meats products. This is the conclusion of the AlimCarcicol programme, launched in 2018, and run in tandem with the IFIP and the ToxAlim unit at the INRAE.

The work done within the framework of this programme has actually shown that an appropriate diet fed to pigs towards the end of fattening improves meat quality and significantly alleviates the risk factors of cancer induced by cold meats products.

A number of scientific articles on this work are planned for 2022.



CONCLUSION OF THE BAICALINVIVO PROGRAMME

This collaborative work with Marion Boutinaud's team at the INRAE picks up from the in vitro work that demonstrated the protective effect of *Scutellaria baicalensis* polyphenols on milk-secreting cells.

This programme confirmed the protective effect of this plant in vivo and on livestock farms on milk-producing cells. The effect of these *Scutellaria* polyphenols therefore explains the positive impact on dairy production (+8 to 12%): more secreting cells = more milk.

This work was presented at the Annual Meeting the European Association of Animal Science in 2022.



LAUNCH OF THE ALTERFI AND DIAPO PROGRAMMES

In 2017, CCPA, in tandem with the INRAE and MixScience, initiated a research programme on the in vitro alternatives for fistulated cows.

This research brought together a number of actors in animal nutrition at a consortium whose work was launched in 2021. Mark the date in your diary in 2025 for the conclusions of the ALTERFI programme!

The DIAPO programme also aims to reduce the need for animal testing to evaluate the digestibility of raw materials. The objective of this programme, which will take 18 months, is to develop an in vivo method to measure the digestibility of amino acids in pigs.

CONTROL FARMS

CCPA's research relies on an international network of control farms, boasting more than 70 partner farms, that test and validate new product and technical solutions for livestock farms under actual conditions before proposing them to customers and livestock farmers.

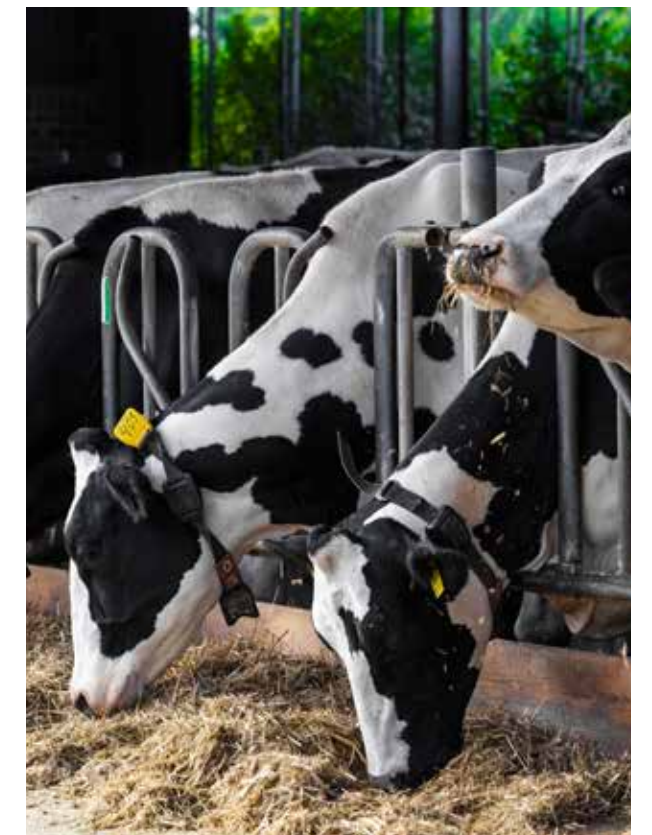
In 2021, more than 20 trials were conducted at control farms in France and overseas.

EURONUTRITION

The aim of Euronutrition, an applied research station dedicated to monogastric nutrition, is to test new solutions by running in vivo trials in a controlled environment.

CCPA conducted 64 trials in 2021, on its own and in tandem with its partners, MixScience and Techna:

- 8 on rabbits
- 6 on layers
- 27 on pigs
- 23 on broilers





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