CBH INTERNATIONAL

Review

Providing LatAm the leading technology to feed humanity

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LIDERAZGO · INNOVACIÓN · INTEGRIDAD · COMPROMISO

Years 25 Años

ECUADOR • UNITED STATES • CHILE • PERU • BOLIVIA • CENTRAL AMERICA

Celebrating 25 Years

More than 25 years ago, I kept on thinking how could I be closer to my family, my country and the Poultry Industry that I am so passionate for, and then is when it occurred to me to form CBH International. Today we are celebrating our 25th Anniversary and we are preparing ourselves for the years to come. It has been a fantastic journey and so proud of it.

CBH was born in Atlanta Georgia and being our headquarters, we have focused on the Latin American region and the world looking for the best technology. Today, CBH brings efficient solutions, high productivity with little impact to the environment.

We print in each project our values; we are committed to outstanding service, looking always as how can we add value to our customers, our suppliers, by finding the highest level of technology without compromising our integrity. This has allowed us to become leaders in the market.

The Agricultural Industry has the biggest challenge as to how it can feed 10 billion people by 2050 and how to preserve the natural resources of water. Our industry must find the best way to produce food in the most efficient way, treating the water that we use to be able to reuse it again and by looking for ways to save water for the future. The difference with CBH is that we are focused on finding the best solution for our customers and representing the top companies in the world.

Our goal is to be and continue to grow as a strategic partner to our customers and suppliers by adding value thru our principles which are integrity, leadership, innovation and compromise. We deliver solutions which are efficient, competitive and always looking for a win win formula.

In CBH we are aware that Ecuador is living a critical moment with nature, one of the most active volcanoes in the continent has awaken and it will bring uncertainty in the next few months. Our continent lives challenges but it always moves forward turning these challenges into opportunities. I believe that is very important to always look ahead, be positive in spite of everything, we must look for solutions that will bring us to our goals, and in the case of our industry the challenge to produce food to feed humanity with the highest quality and added value using the best technology.

Personally, I am very proud to be Ecuadorian, to be able to contribute to my country and the other countries where we operate; I cannot forget to thank the companies which we represent allowing us to bring the best technology to our market. I can also say proudly that most of them come from Holland where my roots also come from.

It is so exciting for me to be present at the Latin American Poultry Congress in Guayaquil, to be able to share with my team, without them this would not be possible, I am so proud of all of you, my family, friends, customers, suppliers and my mentors. I wish you success in the show and all the goals that we can reach together.

Warm regards,

Caroline Hofland

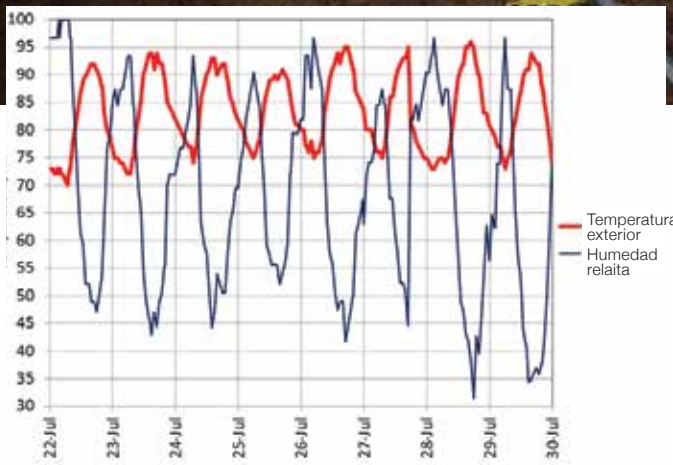
Caroline Bakker Hofland
President & CEO

Minimizing Wet Litter Problems During Hot Weather.

By Mike Czarick, Extension Engineer,
Universidad de Georgia
Trad. Ing. Fausto S. Pérez, CBH Intl. Inc.

Managing proper litter moisture during cold weather with low outside air temperatures, loose houses, low air exchange rates and high fuel prices has been and always will be a challenge. But, many producers are now finding maintaining good litter quality during hot weather can be equally as challenging, even in the best of housing. One of the primary reasons why it is becoming more difficult to control litter moisture during hot weather is the trend towards growing larger and larger birds. Larger/older broilers require lower house temperatures toward the end of the flock in order to keep them comfortable. Whereas a target temperature the last week of a flock for some growing a four pound broiler may be around 75oF, for someone growing a seven or eight pound bird the target temperature the last week of the flock will be ten or more degrees lower. The lower target temperatures will inevitably result in an increased need for evaporative cooling pads to maintain desired house temperatures during hot weather. Furthermore, since the birds are in the house longer, instead of pads systems being used for a week or two during a summertime flock, producers growing large broilers may need to use their pads systems on a daily basis for nearly a month increasing the likelihood of litter moisture problems. It comes down to the simple fact, the more a producer uses their evaporative cooling system, the more of a challenge it will be to maintain proper litter conditions.

It is very important to keep in mind that evaporative cooling is not "air conditioning". An air conditioning system reduces the temperature AND the relative humidity of the air. The more you use it the lower your temperature and humidity will be in a house. As the



Cuadro de temperatura exterior y la humedad relativa durante clima cálido.

name implies "evaporative cooling" pads reduce the temperature of the incoming air through the evaporation of water into the air. As a result, cooling comes at a price...increased humidity. For every one degree cooling, the relative humidity of the air will increase approximately 2.5%. For example, when the outside air temperature is 90oF and the relative humidity is 55% (hot, humid weather) the typical pad system will decrease the incoming air temperature approximately 10oF which in turn will increase the relative humidity of the air to 80%. The end result when using evaporative cooling during hot, humid weather is that the relative humidity in a house will typically run between 75% and 90% making it very difficult to keep litter dry

If you want to read this entire article we recommend visiting *www.poultryventilation.com*

Summary of "Poultry Housing Tips, Vol.25 No. 5" with the authorization of author.

Oval pans for feeder systems.

Contribution to GDP-Roxell

Roxell always at the forefront, offering its unique feeder line system with oval pans for Broilers (Haikoo), Breeders (KIXOO) and rearing/pullets (VITOO).

This unique oval pan shape offers up to 16 feeding spaces. Allowing us to place up to 64 birds per 10' feeding tube, which represents 42% more than chain feeders. When we talk about Haikoo pan (Broilers) they can feed up to 14% more birds per pan than standard pans.

Excellent food distribution, with a high-capacity delivery system, enables us fill all the pans throughout the house with equal portions. Giving all birds an equal chance. A secure device at the tube prevents rolling pans. The unique design of internal and external pans, avoids wasting food. A specially designed external pan catches what could fall out from the inner pan. Making sure no feed is lost.

Our pan base and grill openings, allow an easy and comfortable access for day-old birds. After only a few days, birds are able to eat from the edge of the pan. A feed flow of 360° maintains full pans.

These feeding systems have a simple control panel, which allows a manual operation during the first two weeks. Our systems are provided with a solid hinge allowing easy and complete cleaning. (Pans don't need to be removed for cleaning.)
All the pan parts are made from synthetic materials, which in return help resist UV rays and applications of cleaning agents.

Addition to these benefits, we give a prorated 10 years warranty per-pan.

Arguably, this oval pan offers a new and innovative way to raising birds, providing the comfort that they deserve. In return this helps you obtain the highest quality with the best results in the poultry market.

Turnkey Projects.

An advantage of full implementation.

By Christian Noboa
Project & Service Manager
CBH International

Currently hiring mode "Turnkey Projects", has positioned itself as an alternative of high convenience in the technology area, this mode is characterized by hiring a single vendor that implements a global solution, the grouping and management integration of various consolidated into a macro lens to project activities.

The evolutionary process in the procedures for contracting projects in large and medium enterprises, has proven over time that the consolidation of specialists under its own internal bureaucracy creates difficulties for management, control and cost efficiency, this complexity of integration in different phases of a project has enabled mode turnkey projects is a highly desirable alternative in the management, control and closure.

This type of contract largely eliminates the paradigm of complete projects on time and within costing budgeted without incidents during and after the launch, managing integrated, repetitive, specialized complexity and uncertainties that they arise from the conception of the detailed engineering to commissioning production.

Success in recruiting turnkey lies in finding suppliers who are able to integrate solutions based in turn on a network of suppliers and partners already known, tested, reliable, endowed with autonomous human resource turn aligned to a single management structure; coordinating and integrating full supply of the work, it is mostly feasible to anticipate contingencies and changes to the program of activities to avoid downtime, over the costs and delays in projecting work.

The value proposition for project management in turnkey, allows the reduction of costs, transaction time associated risks and integrated design, functionality, guarantees, accountability, management and project management, allowing own resources approach organizations in key business activities.

The advantages of such integration are evident before hiring trends of the various productive sectors, thus allowing for greater ease in managing procurement and project management at all levels.

In this context and as a comprehensive service, CBH International provides all necessary for the development of "Turnkey Projects" support, which is why we invite you to contact all who are interested in having a new business area or too, they wish to renew the currently possess.

CBH International has 25 years in the market and with our experience, we have implemented several successful projects now provide quality food in different countries of the region.

Up: *engineering and turnkey projects.*
Center: *grain storage and drying.*
Below: *Industrial corn storage complex.*

Environmental responsibility and industrial wastewater treatment.

Por :Ing. Fausto S. Pérez
CBH Intl. Inc.

Wastewater treatment (WWT) at industrial level, is of ever-increasing importance. When we think that 70% of the world's surface is covered by water it seems that this is an abundant resource. But considering that only 5% is fresh water and that 3% of that water is "trapped" at the poles, then it follows that only the remaining 2% should serve to meet the needs of earth's 6 billion inhabitants.

Fortunately, nowadays there is a worldwide trend to take better care of this scarce resource. Legislation in most developed countries is very strict from decades ago. In Latin America there's also evidence of greater concern and the passing of laws and increasingly stringent regulations.

Therefore it is important, to become familiar with the basic principles of a wastewater treatment system.

Problems and solutions

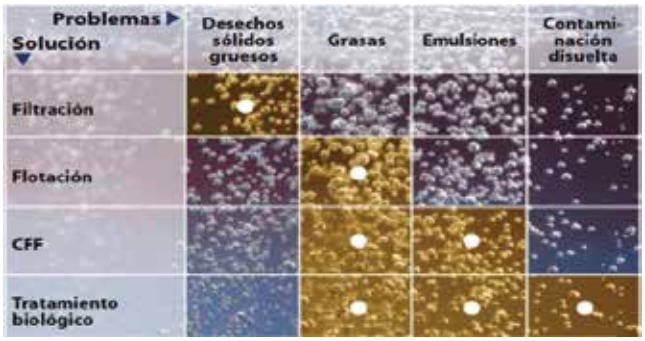


Figure 1 –Problems and solutions (courtesy of Aqua Industrial Watertreatment)

Water pollution can be of four types:

- Coarse solid waste (> 1mm)
- Fats
- Emulsions
- Dissolved Pollution

As we can see, there's one or more alternate solutions for each type of pollution

Then it follows that:

- Coarse solid waste can be removed by mechanical meanns (filters or screens of different types).
- Dissolved Air Flotation units (DAF's), allow us to remove fat (not emulsified).
- CFF systems (coagulation, flocculation and flotation) remove fat, both emulsified and non-emulsified.
- And finally, biological systems are able to eliminate pollution by fats and emulsions (within certain limits) and are an efficient means of removing dissolved pollution.

Alternatives for WWT

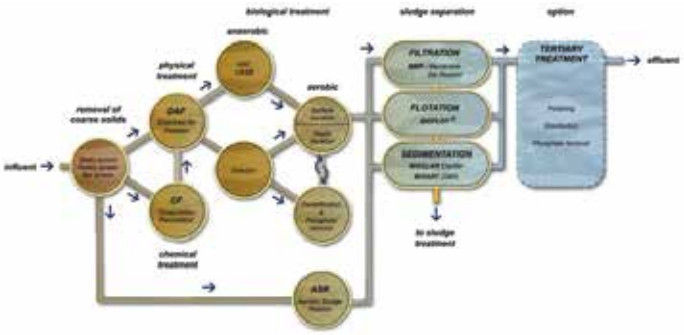


Figure 2- Treatment Alternatives (courtesy of Aqua Industrial Watertreatment)

According to the above graphic we can see various technologies for the purification of wastewater as:

- Filtration
- Physical pre-treatments (DAF) or chemical pre-treatments (CFF)
- Biological secondary treatment: aerobic (aeration, denitrification) or anaerobic
- Sludge separation systems: filtration, flotation or sedimentation
- Tertiary treatment: polishing, disinfection, phosphate removal
- Sludge de watering systems

Typical treatment systems

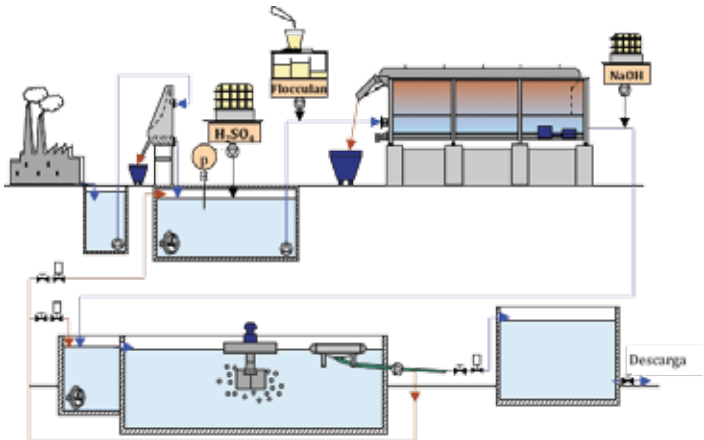


Figure 3. Flow diagram of WWTP (courtesy of Aqua Industrial Watertreatment)

In the example above you can see the basic elements of a treatment system:

- Pump pit
- Parabolic stationary filter
- Leveling tank
- Flocculator
- DAF Unit
- Selector basin
- Aeration / denitrification basin (Sequential Batch Reactor SBR)
- Treated water reservoir

The above mentioned elements are typically found in a wastewater treatment plant (WWTP), but not necessarily all the existing equipment.

The design of a WWTP is truly like a tailored suit, each industry has different needs, each country or region has different effluent demands (some stricter than others) and therefore each situation must be analyzed separately.

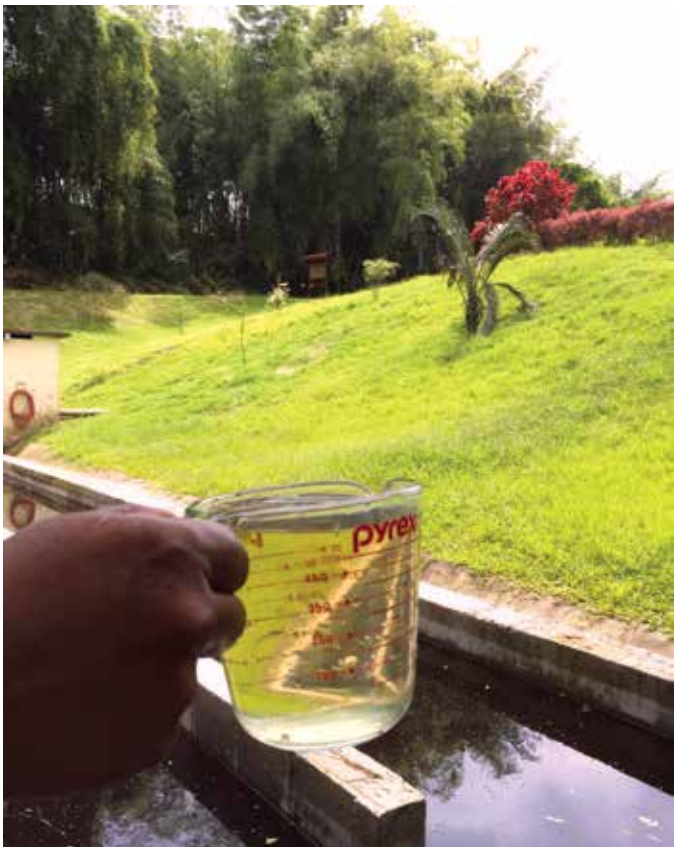
What steps should an industry follow in order to build and operate a successful WWTP?

1. Local regulations should be carefully researched and a decision made as to which parameters apply. This seems very obvious, but it is often not easy given the existence of conflicting or overlapping laws in specific regions.

2. You need to select a reliable laboratory that can analyze the effluent wastewater, taking into account, among other parameters: BOD, COD, oils and fats, nitrogen, suspended solids, etc. It is advisable to have comparative analyses by 2 or 3 different laboratories.

3. Invite worldwide reputable companies for the WWTP desing. It's very important to perform reference visits to plants already installed by the bidders. Do not trust what they tell you, take the time to visit facilities, see results and determine the reliability of those who offer the service.

4. Carefully analyze all the bids submitted. Don't look only at the final price, you should analyze the equipment origin and quality, energy consumption, tech support (several companies have worldwide support 24/7 365), spare parts availability, engineering level offered, delivery time, assembly and commissioning time, guarantees and above all experience in your particular industry.



5. Although a turnkey project is more convenient to carry out, it is not always the best idea. Analyze separately the cost of equipment and the cost of civil works. The latter represents a very important value in such projects and often it's economically more attractive to hire an independent company to execute it; always under the specs of the equipment supplier who will be responsible for the final plant performance.

6. Once the contractors for equipment and civil works have been selected, a project PERT diagram should be established. Keep a tight control of the project's critical path and of course don'tt neglect cost control.

7. After installation hydraulic system start-up, remember it will take 6-10 weeks for a biological system to achieve maximum efficiency; depending on a variety of factors. Monitor your effluents on a frequent basis. In the beginning it should be done every day (once or several times, depending on the plant's operating time), once the system has stabilized effluent analyses should be done at least 3 times a week.

8. Take advantage of the installation and commissioning period in order to train your work team. No matter how automated a WWTP may be, it requires frequent monitoring. Your company must have at least 2 people fully trained in the operation of the WWTP at all times.

9. Keep a detailed record of the different operating parameters, water analyses, energy consumption and other WWTP. Get used to keep a log Of all these data. This is usually a legal requirement in many countries.

10 Do not neglect at any time to control the operating parameters, maintenance and cleaning of your WWTP. A well-designed and well-maintained facility should not generate bad smell or be considered the last link in the production chain. Make it attractive and use it as a marketing tool to prove your commitment to the environment!

Remember that a WWTP represents a substantial investment from an economic viewpoint, but even more importantly from an environmental one. All the water that we treat and meets the appropriate effluent demands returns to nature turned into a new life source.

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THE MAJESTY CHARGE

Fighting Prostate Cancer

CBH values our customers and vendors, so much that we encourage each of them to get tested for Prostate Cancer starting at the age of 40.

Every year CBH International donates a portion of our Net Profit to the Prostate Cancer Foundation (PCF) to fund research of better treatments and a cure for Prostate Cancer.
The PCF funds more than 1,500 programs at nearly 200 research centers in 20 countries.

This initiative is done in memory of Bas W. Q. Hofland.

To donate, go to www.pcf.org/BasHofland

Early Detection saves lives. Get Tested.

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Promociones

Patricio Coello has been promoted to Vice President Sales and marketing.

Marco Montecucco has been promoted to Technical and Commercial Manager

Jesús Zambrano is our new Regional Sales Manager Ecuador

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