

# ALLIANCE EQUINE



*Act'Immune  
Breeding Solution*





## Passive immunity

The immunity passive is determined from antibodies generated by a person and transmitted by an other person.

In this case of mare, passive immunity spreads by the colostrum.

## Colostrum, an essential role

In mare, the impermeability of placental barrier to gamma globulin is that the chance for a newborn to benefit a maternal immunity gained, can only come by colostrum absorption during the first hour of its life.

This concentration of antibodies in colostrum may vary following a multitude factors suffered by the mare during its gestation.

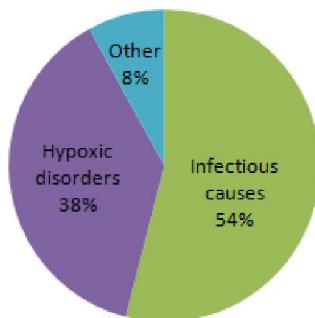
- Oxydative stress
- Mycotoxins
- Non appropriated diet

Almost 1/3 of mares produce low quality of colostrum. (Gémin, 1990; Leblanc et al, 1986; Leblanc et al, 1992)

Different studies have demonstrated that failure of passive immunity can be prejudicial for foals.

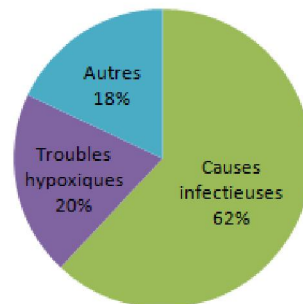
- 50% of foals with a rate of IgG lower than 4g/L develop an infection.
- 5% of foals well protected, IgG > 8gr/ get just sick.

**Foals 0 to 7 days**



**Study Laugier (2009)**

**Foals 0 to 1 month**



**Study Collobert-Laugier (1998)**

A Colostrum quality measurement at birth provides on the protection of foal at birth.

Quality assesement of Colostrum in Immunoglobulin (IgG)

Assesement	Measure IgG in g/L
Low	<40 g/L
Mediocre	>40 à 60g/L
Higer	> 60 g à 80g/L
Highest	>80g/L

According to Leblanc et Tran, 1987

Foaling, a sensitive period in terms of immune.

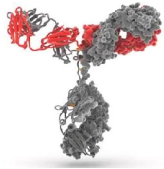
During the farrowing the mare suffered different metabolic changing.

- Augmentation of oxidative stress
- Lowering of immune defences
- Increase of haemolysis (rich of hepatic overload)
- Transfer of blood immunity in the colostrum

# ACT'IMMUNE

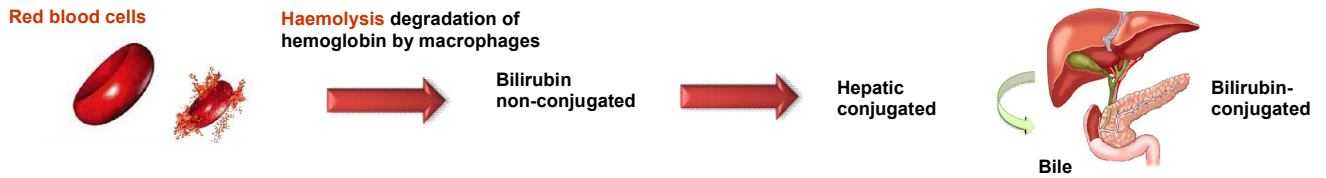


Different sources of control to assess the influence of these factors :



- The rate of IgG in blood enquire us on immune status of mare.
  - IgG are principal antibodies found in blood (>80%) and colostrum (>90 %).
  - Major role in neutralisation of toxins, bacterial and virus whose it favour the destruction by white cells.

- The rate of bilirubin enquires us on the resistance oxidant stress.



## Conclusion :

Maximize the potential of broodmares; optimise the protection of foals at birth can be only done by limiting risks which may link at the moment of gestation.

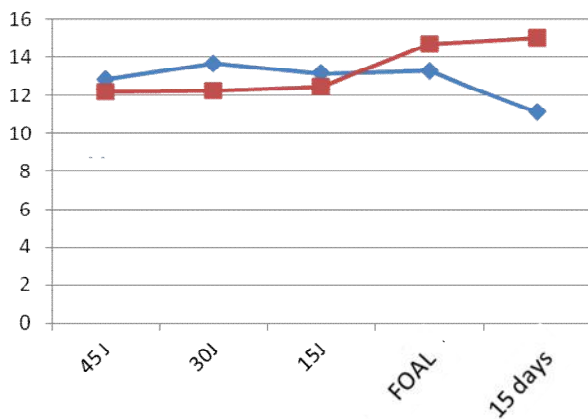
A contribution of nutritional supplement adapted will improve the immune status of mare to contribute a passage of passive immunity (mare and foal) of good quality.

## Synthesis of results on the breeding mare

### Studies :

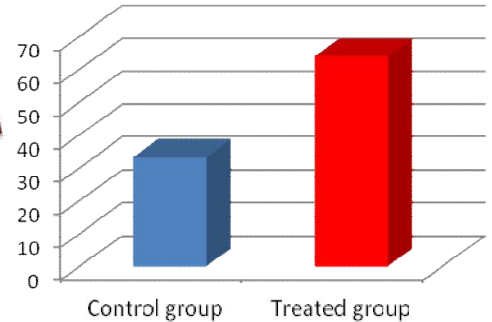
A study has been done in 2016 on mare with 5 batches treated group and 5 batches control group. Batches treated have received by days 150g of Act'Immune complex.

**Evolution of blood IgG rate**



**Transfer of immunity to the colostrum**

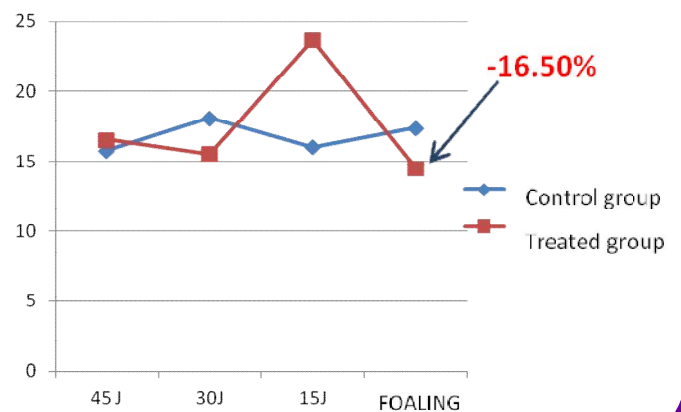
**IgG rate in the colostrum**



### The foaling results :

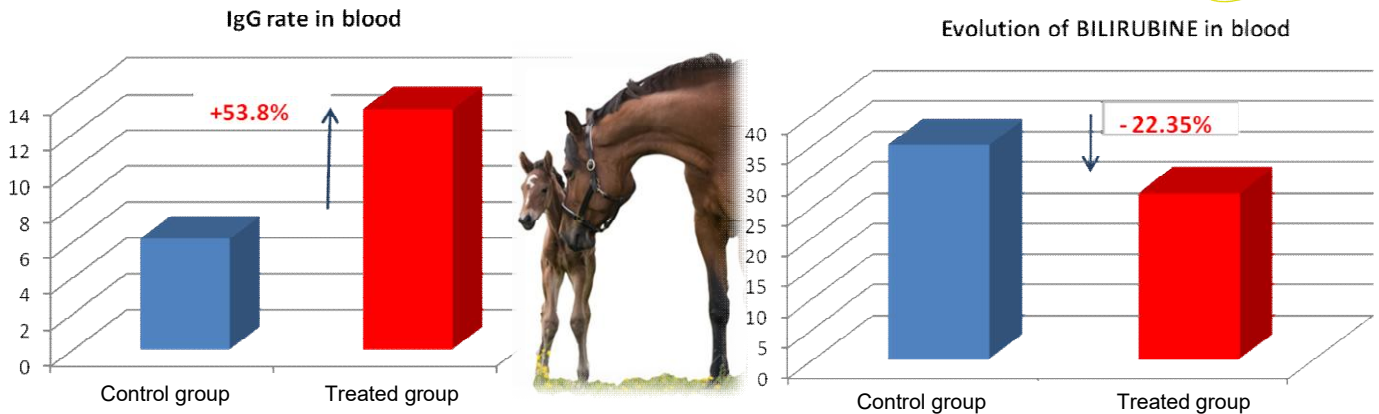
- 1/ Augmentation of IgG rate +10% foaling. +26.20% at J+15 of the foaling.
- 2/ Augmentation of IgG rate in the colostrum of 47.92%.
- 3/ Decrease of bilirubin rate +16.50% foaling.

**Evolution of BILIRUBINE in blood**





## Synthesis on the foal

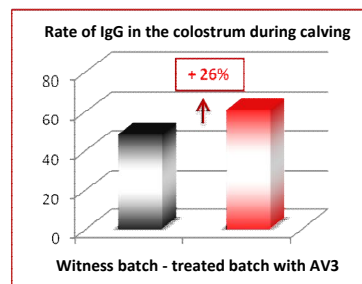
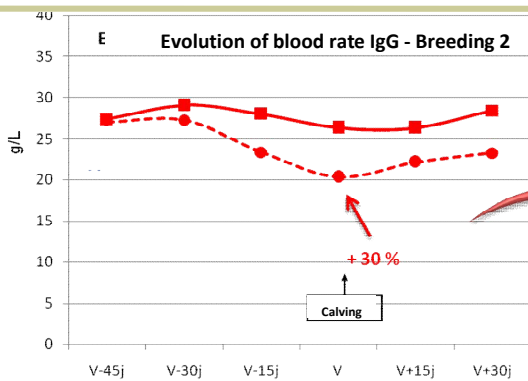


**Results at the birth + 48h on the foal :**

- 1/ IgG rate in the blood at the birth : +53.80%
- 2/ Bilirubine rate in the blood : -22.35%

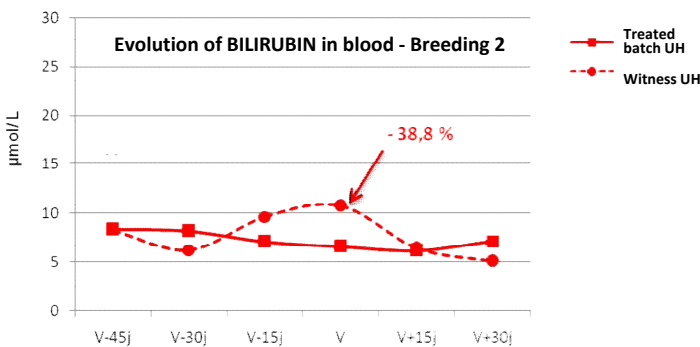
### Studies on others species: Ruminant

A studie was elaborated in 2015 dairy cows whose 20 contro group and 20 treated group iin 2 livestock.. The treated group had per day a dosage of the plants complex component Act'Immune



**Results during farrowing breeding 2**

- Augmentation of IgG rate in blood (+30%)
- Lowered of bilirubin rate (-38,8%)



## A solution by plants and yeast walls.

The Act'Immune formula is composed of plant ingredients and yeast walls. Milk thistle, Gingko Biloba allow an interest in this formula like demonstrated by study above. Act'immune is compound of others plants extract recognized for their detoxifying action. Yeast walls contained in Act'Immune have a capacity to capture different pathogenic agents. Yeast walls will enable to minimize impact of pathogenic agents during the gestation.



No contraindication to the competition

Alliance Equine - Pôle Européen du Cheval - 72530 Yvré L'Evêque - +33 (0)2 43 82 07 31 - Mail : contact@allianceequine.com