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Session 34 "Livestock Farming Systems"

EFSA's Scientific Assessment on the effects of current farming and husbandry systems on dairy cow welfare

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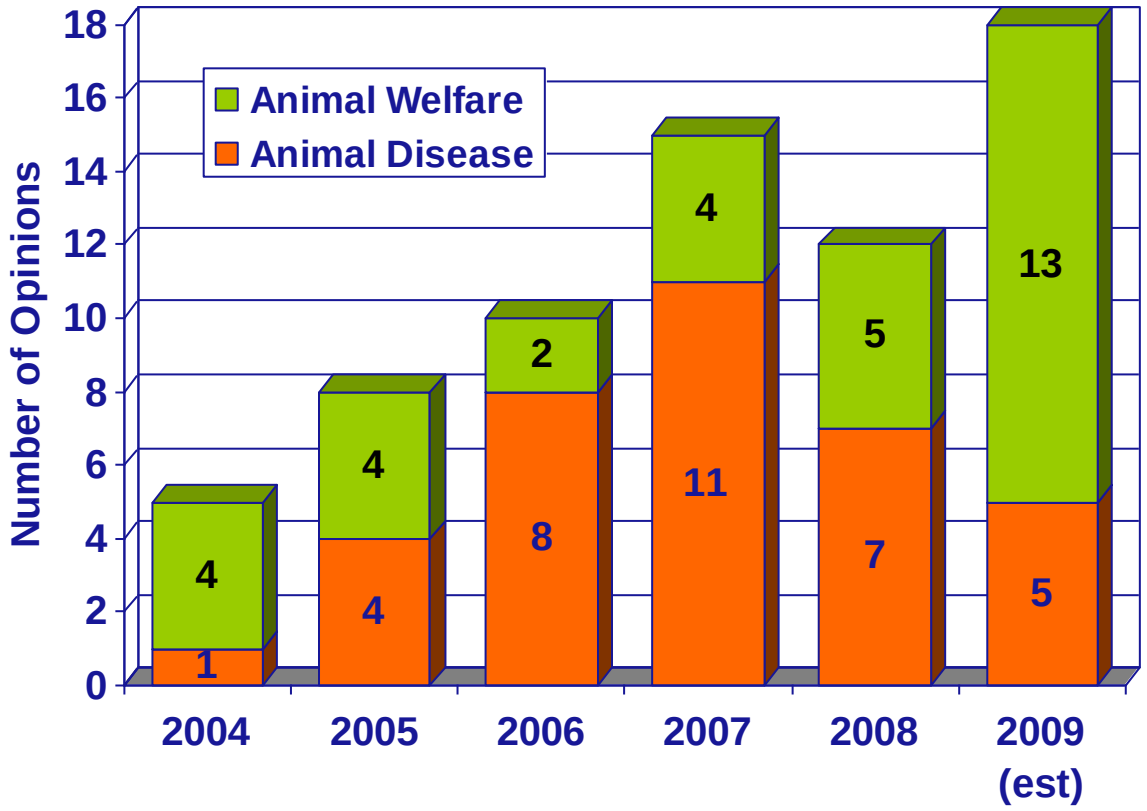
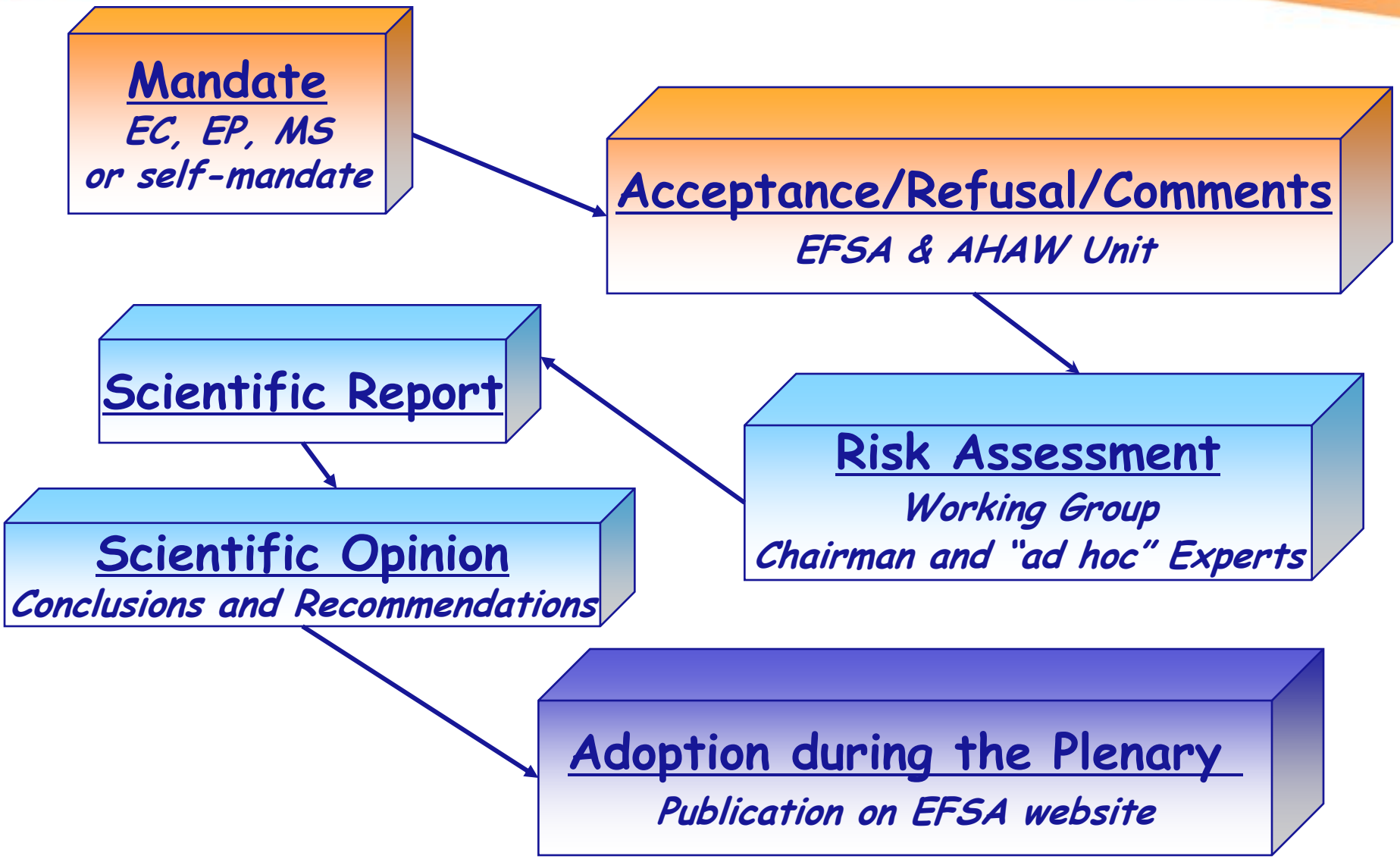
AHAW Panel Mandate

The AHAW Panel delivers scientific opinions on all aspects of animal health (diseases) and animal welfare, primarily related to food producing animals including fish.



Development of a Scientific Opinion



EC Mandate on Dairy Cow Welfare

- **Terms of reference:**

1. **Do current farming and husbandry systems comply with the requirements of the well-being of dairy cows?**
2. **Impact of genetic selection for higher productivity on animal welfare**, considering:
   - lameness,
   - mastitis,
   - metabolic disorders,
   - fertility problems.
3. Where relevant for Animal Welfare, **animal health and food safety aspects** to be taken into account.

Effects of the farming systems on dairy cows welfare and disease

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Scientific Report

- Welfare concepts and assessment
- The needs of dairy cows
- Farming systems
- Genetic change
- Nutrition and metabolic disorders
- Housing conditions
- Milking procedures
- Social and maternal
- Lameness
- Mastitis
- Reproduction
- Management and disease
- Handling
- Owner and stockperson training
- Public health and food safety
- Risk assessment
- Welfare monitoring

Risk Assessment (RA) on Dairy Cow Welfare

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"…from the pathological, zootechnical, physiological and behavioural points of view…"

Management

Nutrition

Leg & Locomotion
Udder
Metab. & Reprod
Behaviour

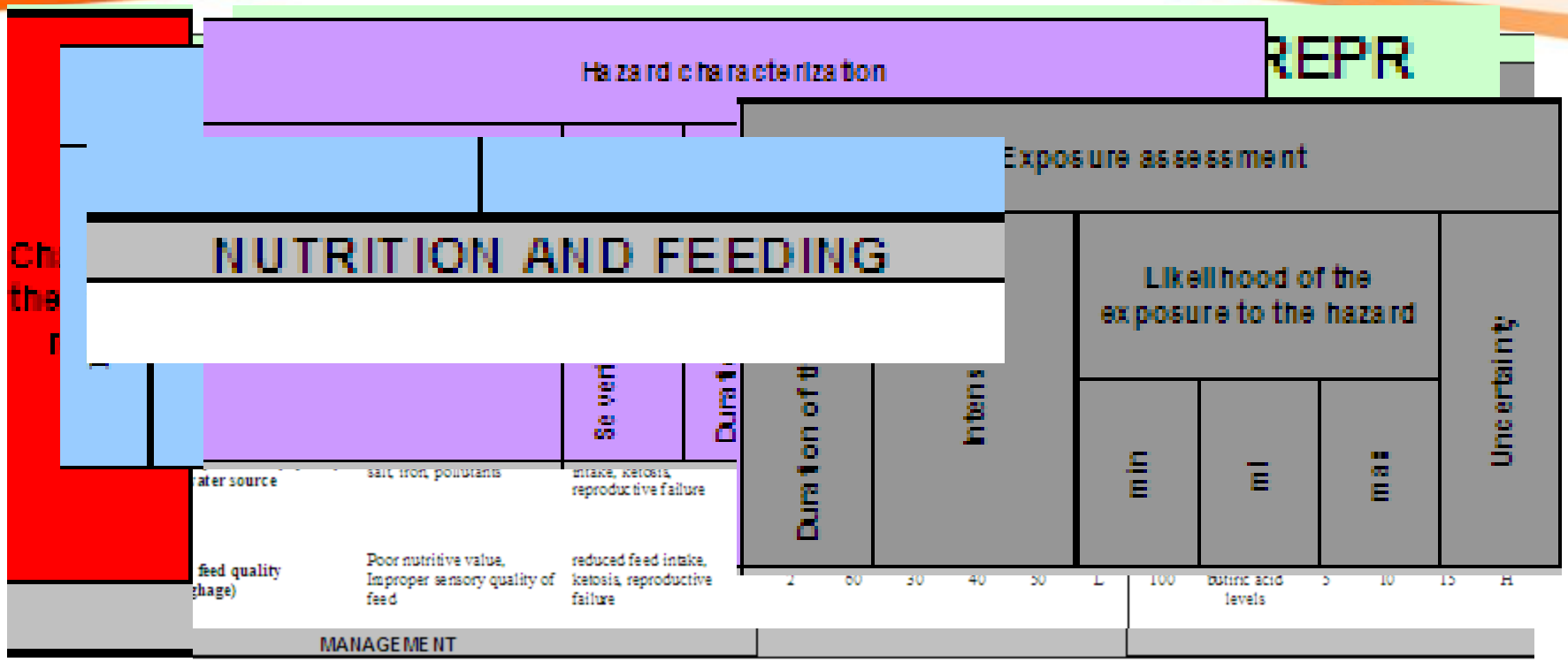
RA

Genetics

Housing

- Cubicle houses
- Tie stalls
- Straw yards
- Pasture

Risk Assessment Methodology



		ater source	salt, iron, pollutants	intake, ketosis, reproductive failure												
		feed quality ghage)	Poor nutritive value, Improper sensory quality of feed	reduced feed intake, ketosis, reproductive failure	2	60	30	40	50	L	100	butiric acid levels	5	10	15	H
		calving management		metritis, dystocia, reduced fertility; prolonged parturition, reduced feed intake, fatty liver, downer cows	3	15	5	10	15	L	5	full exposure	50	60	70	H
8.2. / 8.3 / 8.4		ng animals from ent groups	the single animal is moved to another group	reduced feed intake, ketosis, reproductive failure	1	5	10	15	20	L	5	full exposure	98	99	100	M
13.1	3	Insufficient or inappropriate contact with humans	--	fear, injuries, reproductive and other disorders	2	1	20	50	80	H	365	high % of negative contact	15	25	35	H

Risk Assessment Results: Metabolic and Reproductive disorders

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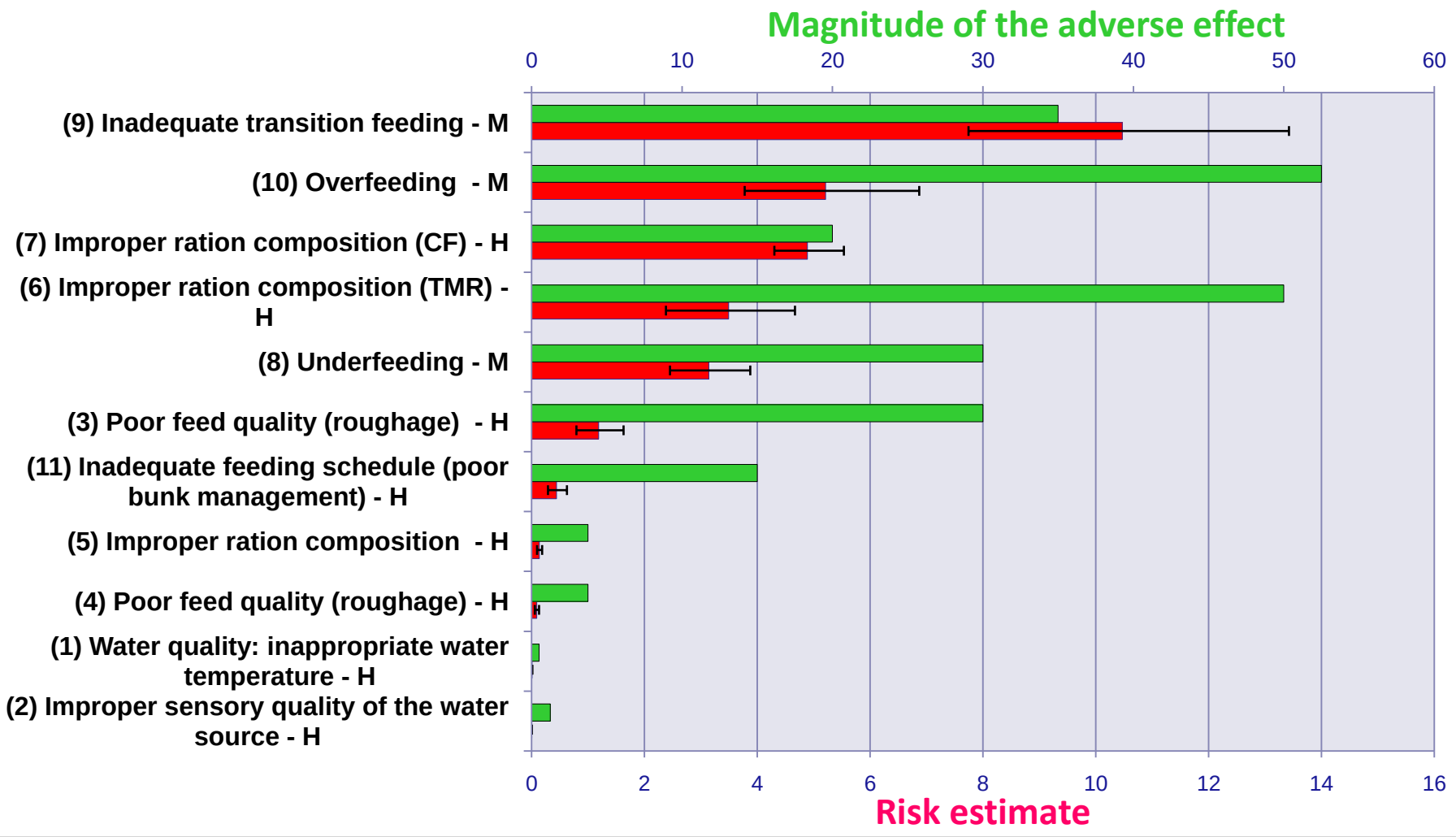
Tie Stalls: Nutrition and Feeding



Risk Assessment Results: Leg and locomotion disorders

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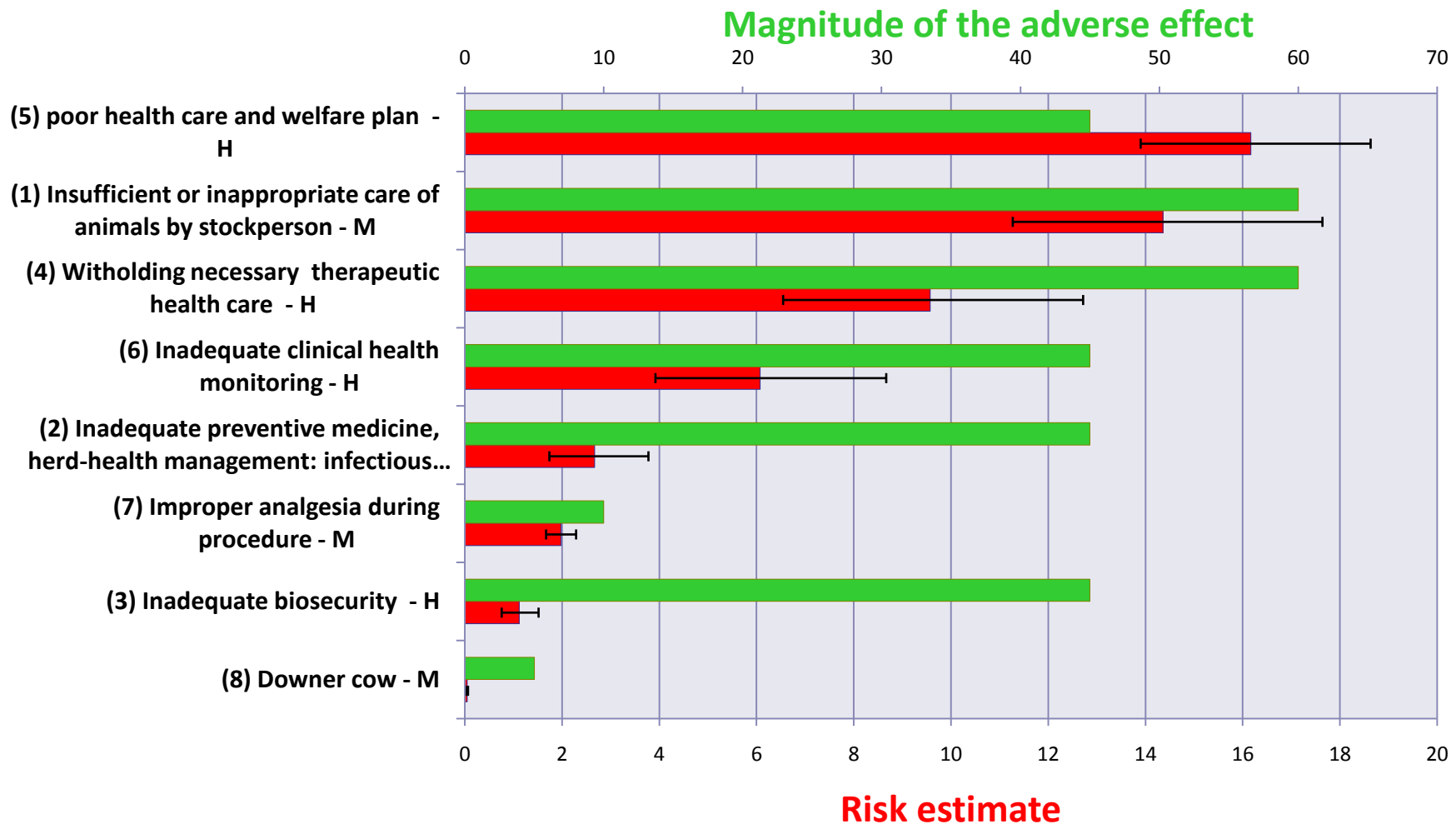
Tie Stalls: Management



Leg and locomotion disorders: Housing hazards vs H. Systems

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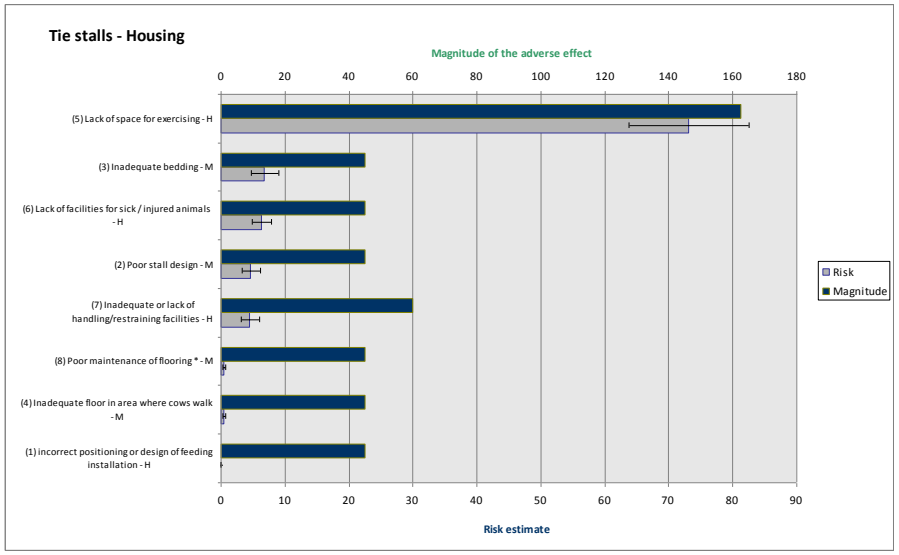
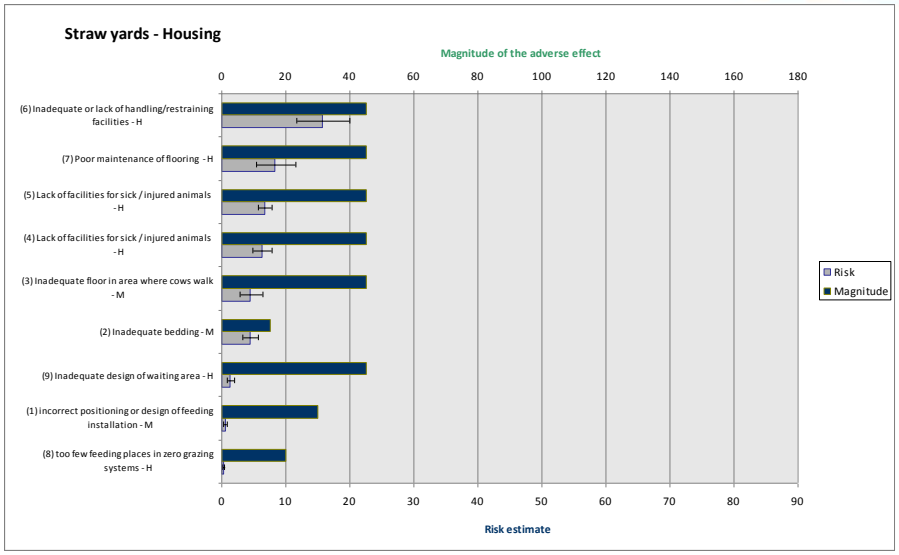
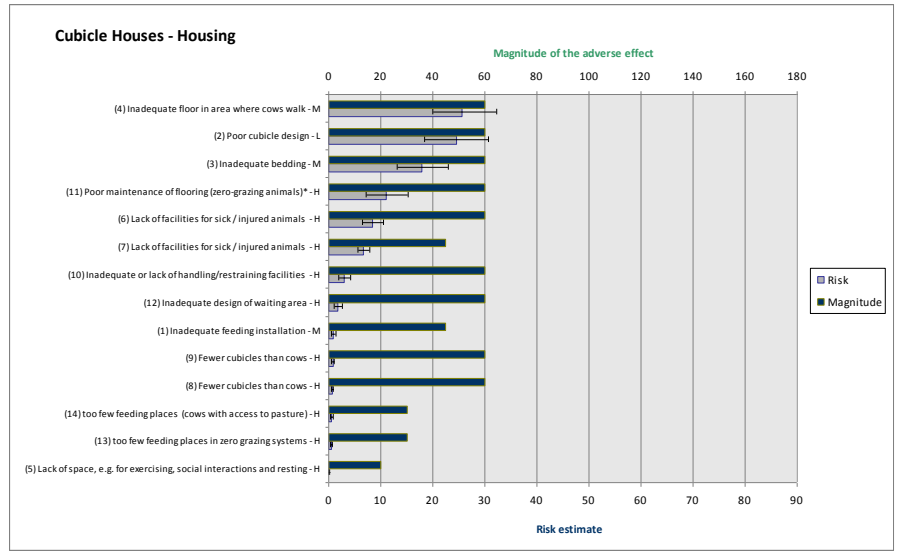
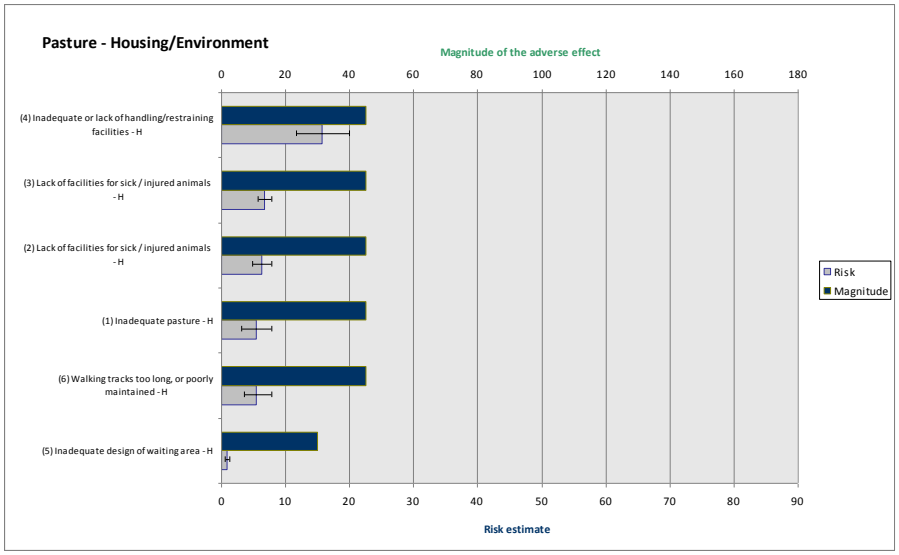
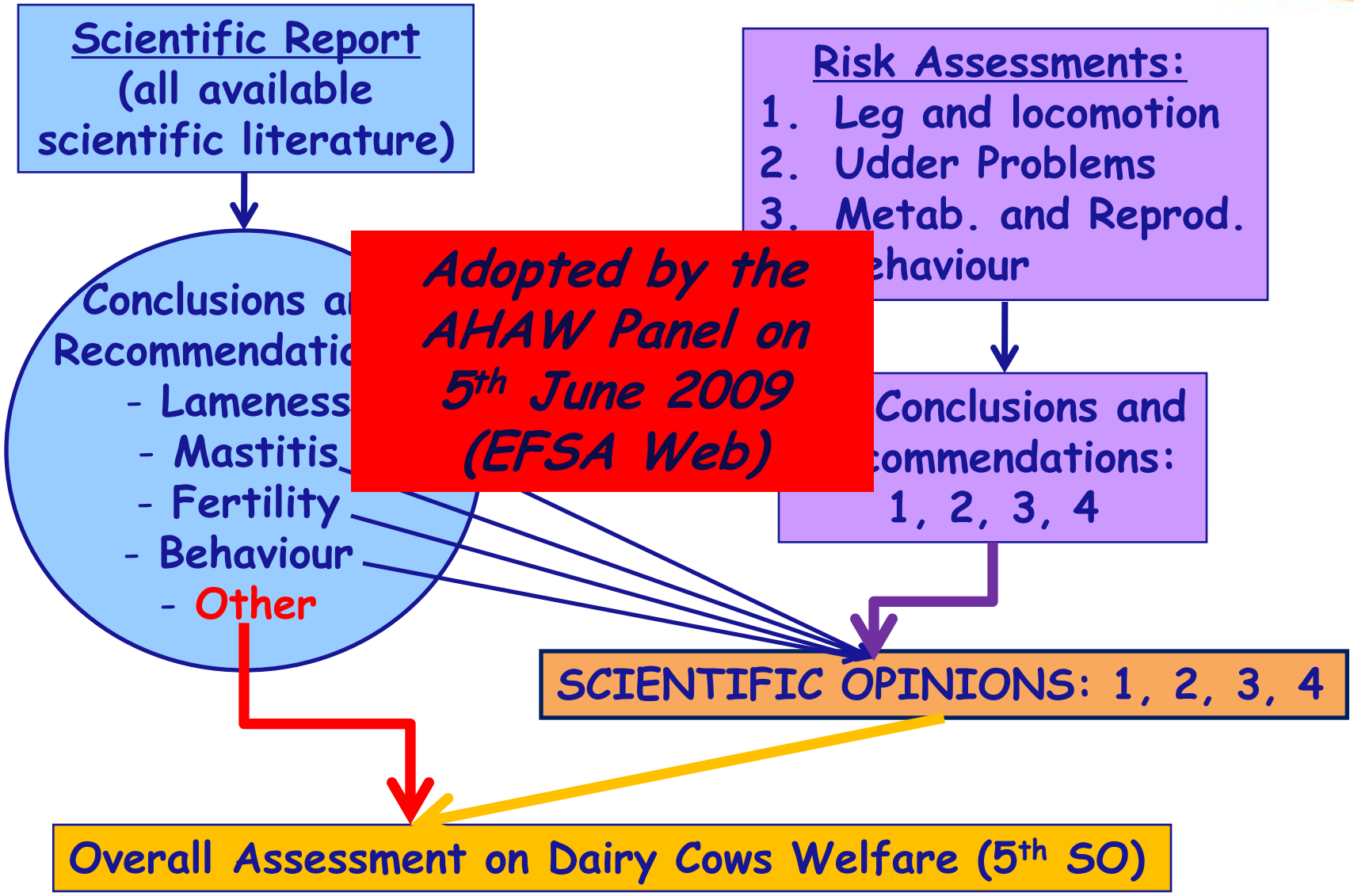








Scientific Opinions Based on Scientific Literature and RAs



Scientific Opinion on "Udder problems in dairy cows"

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Chapter 7 - Milking procedures in relation to welfare

Conclusions:

- Poorly designed, constructed or managed milking equipment leads to teat injury, pain and udder disease.
- Inappropriate cleaning, disinfection and drying of udders increase the risk of transmission of pathogens.
- The **risk assessment** showed that inadequate milking procedures are an important hazard in all systems.

Recommendations:

- Milking equipment should be designed, constructed, managed, cleaned and disinfected so that to the risk of injury, pain and disease in dairy cows is minimised.
- **RA** highlighted that milking procedures should comply with relevant guidelines for mastitis prevention.

Scientific opinion on "Leg and locomotion disorders in dairy cows"

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Chapter 6 - Housing conditions in relation to welfare

- **RA:** housing hazards have a major influence (magnitude and risk estimate) compared with the rest of hazards.

6.1.4 Walking areas

Conclusions

- ✓ When there is not a cubicle for every cow, reduced lying time and aggression with poor welfare are more likely to occur. It may also lead to increased lameness and mastitis.
- ✓ The **risk assessment** showed that in cubicles the greatest magnitudes of the adverse effects and risk estimates are associated with inadequate floor (walk area), poor cubicle design and inadequate bedding.

Recommendations

- ✓ There should be at least as many cubicles as cows.
- ✓ Injuries to the cows should be monitored and cubicles modified or replaced, if repeated injuries for poor design.

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- George Stilwell
- Susanne Waiblinger
- John Webster

For any additional info:

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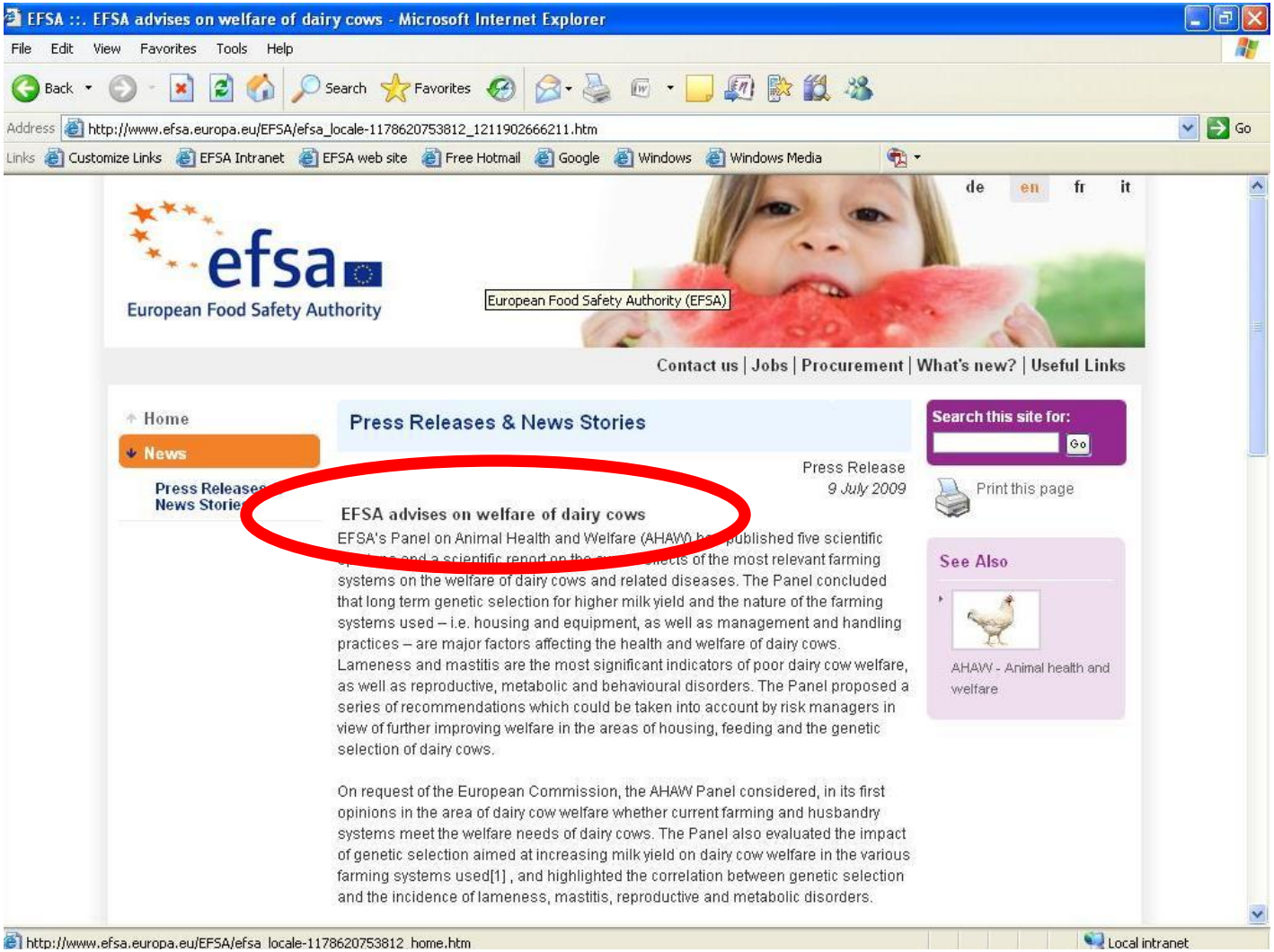

Thanks for your attention !!