

**PROGRESS IN CONTROL OF HAEMORRHAGIC
SEPTICAEMIA (PASTEURELLOSIS) IN
CATTLE IN IRAN***

By

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INTRODUCTION:

Haemorrhagic Septicaemia is a classic form of bovine Pasteurellosis in Iran. It is caused by *Pasteurella multocida*, type I of Robert's classification.

GEOGRAPHICAL DISTRIBUTION:

The disease is seasonal, with outbreaks occurring in rainy seasons. It shows a preference for humid and marshy zones, particularly in the North, along the coast of Caspian Sea, the North-West near the Lake of Rezayeh, the South West in the basin of the Karoun River, and in the Centre, near the Zayandeh-Roud River (Graph No. 1).

In Tehran area, some cases were observed many years ago but to day disease is eradicated.

In contaminated areas, the disease has Enzoö-Epizootic nature, causing thousands of death in cattle.

TYPING OF ISOLATED STRAINS:

In 1959, Kaweh, Sohrab and Baharsefat (5), of the Razi State Institute; typed the strains of *Pasteurella* isolated from cattle, buffaloes, pigs and birds

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in different parts of the country, using the techniques of Roberts (6) and Carter (2), in a campaign started in 1935. It was found that 75% of the isolated bovine strains were of type I Roberts, or B of Carter's. Others were of types II, III or unidentifiable.

VACCINES PRODUCTION:

In 1938, Delpy and Rastegar (3), and later Delpy and Mirshamsy (4), adopted a vaccine prepared with strains isolated from cattle and buffaloes. The vaccine was composed of lysed bacteria by treatment with saponine & merthiolate and treated with Saponine and Merthiolate.

The preparation of vaccine increase day by day, due to the demand of Veterinary Organization and farmers.

The dose of vaccine adopted to day by the Razi State Institute is 2 ml. for cattle and buffaloes, and 1 ml. for pigs. Each ml. of vaccine corresponds to 1×10^9 micro-organisms, or 1.0 mg. dry Pasteurella.

The 1959, Kaweh, Sohrab and Baharsefat (5), replaced the Saponine lysed vaccine with Saponine formalized vaccine.

The immunity provoked by the formalized vaccine was as good as that of the previous vaccine, but otherwise, it is far safer. Ever since, the Razi State Institute has started preparing Saponin treated formalized vaccine, instead of lysed vaccine.

In 1976, Baharsefat *et al.* (1), prepared a combine haemorrhagic septicaemia and black-leg vaccine which were used in zones where both diseases existed. Results were very satisfactory.

REDUCTION OF THE DISEASE THROUGH VACCINATION:

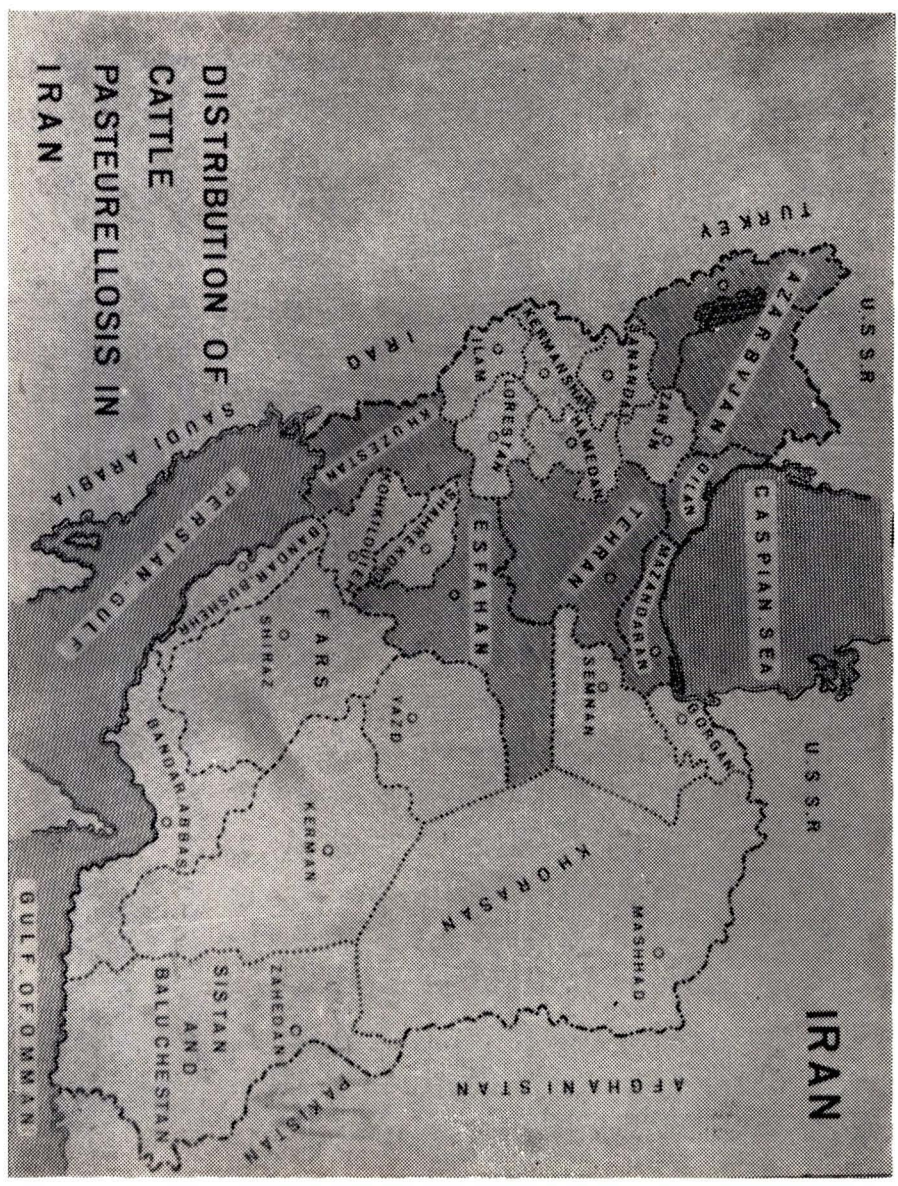
According to Fig. No. 2, it is clear that there exists a relationship between the increased use of vaccine, and the decrease in the number of cases.

An apparent increase in the incidence of the disease, in 1970-71, was attributed to the outbreak of Rinderpest in 1968-69. During the indicated period, all activities of the Veterinary Organisation were directed toward the eradication of Rinderpest, and there was a marked decrease of combat activities against all other diseases.

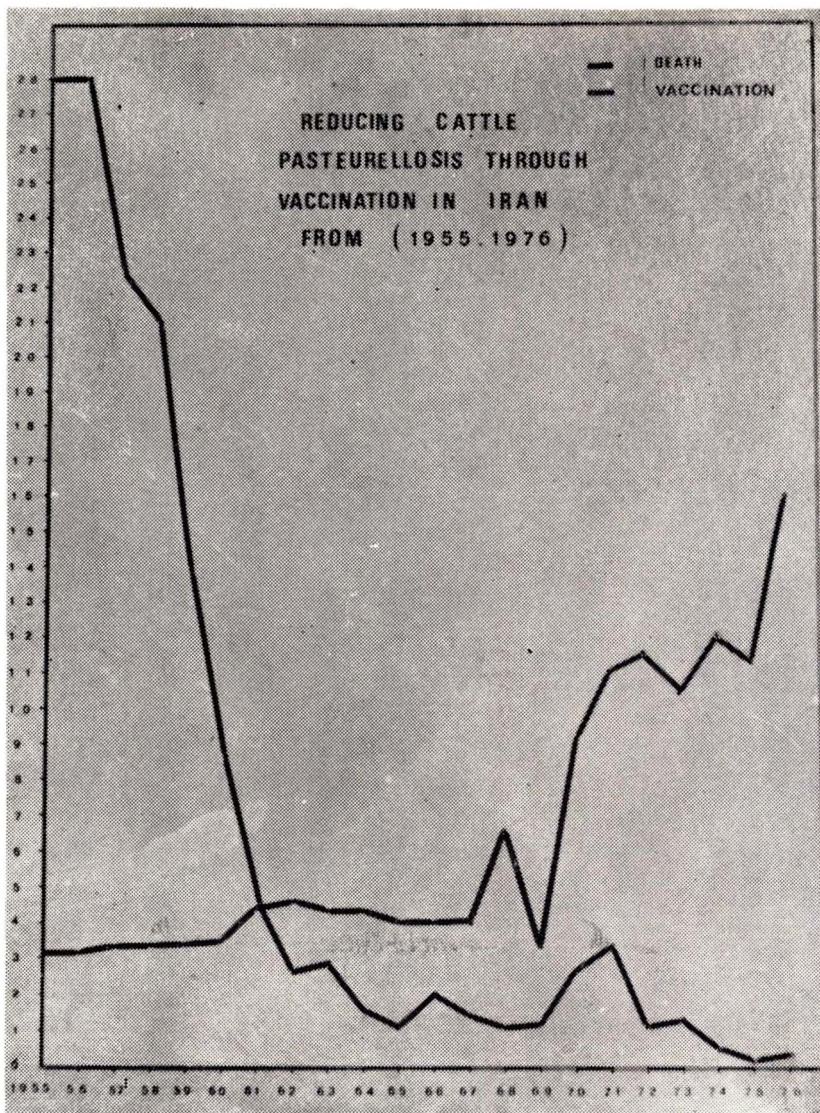
From 1970 onward, there has been a marked increase in the use of Vaccine by the Agricultural Extension and Development resulting in a marked decrease in the incidence of the disease in cattle in Iran.

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**DISTRIBUTION OF
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