

the oxidation of IAA. Prolonged persistence of IAA might promote plant growth.

Table 3 indicate that 1N KCl extractable ammoniacal nitrogen in control (without humic acid) decreased with days of incubation while the nitrate nitrogen content increased. With the days of incubation, there was a slight increase in the 1N KCl extractable ammoniacal nitrogen and a marked increase in the nitrate nitrogen in this humic acid-treated soil, while there was decreasing trend in the available nitrogen in control.

The more efficient utilization of applied nitrogen by the plants in the presence of humic acid could be attributed to the slow release of nitrogen due to the formation of nitrogen-organic complexes, thus contributing to the promotion of growth.

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## NEWS

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### CHROMOSOME LINK WITH TUBEROUS SCLEROSIS IDENTIFIED

A team of U.K. medical researchers has discovered a link between tuberous sclerosis (TS) and chromosome 9.

The disease, which is found throughout the world, is inherited and affects about one in every 15,000 in the U.K. It is a single-gene disorder and best known for its combination of neurological and dermatological features. It leads to mental retardation in about 50 per cent of all patients and can lead to epileptic attacks, intracerebral tumours and skin disorders. Other organs can also be affected, including the kidneys, heart, lungs and bones.

The discovery followed a study of 14 three-generation families and five two-generation families throughout the U.K. "We determined the chromosomal location of the TS gene by means of a linkage study of blood groups, plasma proteins and red cell enzymes," said Dr. John Osborne, a member of the research team at Bath's Royal United Hospital in southwest England. "Medical history records were

studied and clinical examinations were also undertaken."

The disease can be transmitted from parents with no apparent signs of the disease to their children, sometimes with devastating effects. "We discovered that the TS gene is close to the gene in the ABO blood group," said Dr. Osborne.

He continued: "The blood group does not cause the disease, but the manner in which the blood group is passed from parent to child will be an indication of the way in which the disease is passed on. For example, if a woman who has the disease is pregnant, it will now be possible to test her unborn baby and discover what blood group it has. If the disease is associated with the B group in the family and the baby is also group B, then there is a 90 per cent possibility that the baby will also have TS. (*Spectrum*, British Science News, 1987/No. 207/12; Published by British High Commission, New Delhi 110 021).