

Paraquat & Parkinson's Disease

αλκυονας

Literature Developments of Concern

- Not a recent problem - issue arose 10 years ago!
- Fredriksson *et. al.*, (1993) Eriksson's group (Uppsala). Two oral doses of PQ (0.36 mg/kg at days 10 & 11) to young C₅₇Bl₆ mice.
 - behavioural effects observed at 60 days
 - corresponding reductions in striatal dopamine content
- Syngenta funded follow up work conducted to see if findings were repeatable - no conclusive effects.

ελυθεις

Recent Literature Developments Of Concern

- Two US based research groups have produced a series of publications since 1999 implicating paraquat in a Parkinson's disease animal model - work still on going.
- Cory-Slechta group - *Rutgers, NJ, (University of Rochester, NY).*
Di Monte group - *Parkinson's Institute, Sunnyvale, CA.*
- Using the C₅₇Bl₆ mouse model and i.p. dosing of PQ (1-30 mg/kg) - typically 3 weekly doses of 10 mg/kg.
- Looking at three biological endpoints as markers of toxicity:
 - neuropathological - loss of neurones from substantia nigra (stereology)
 - neurochemical - loss of dopamine from the striatum
 - neurobehavioural - reduction in locomotor activity

ελυθεις