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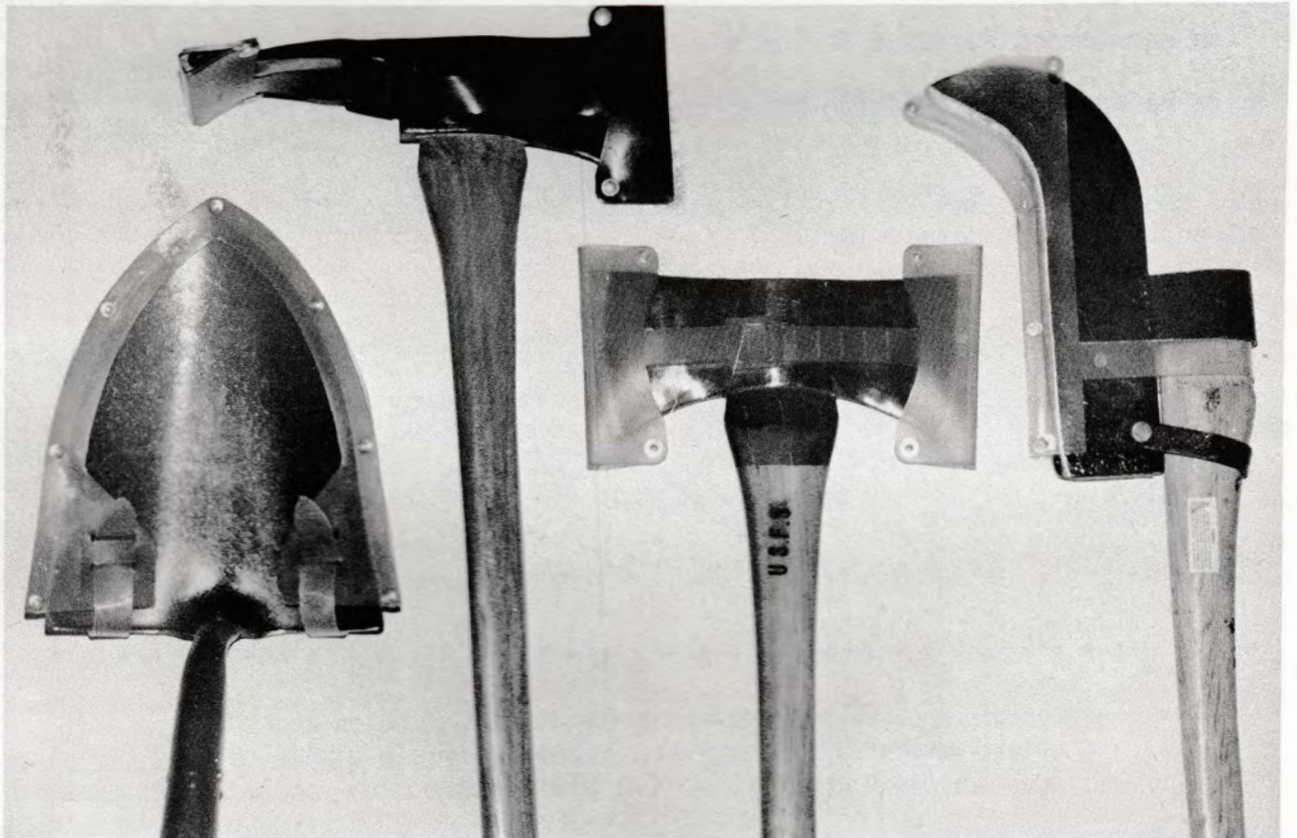
and
North American
Forestry Commission,
FAO

**Fire Management
Study Group**



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Forest Fire News



PRESCRIBED BURNING R & D IN BRAZIL

DESARROLLO DE UN PROGRAMA DE LA QUEMA PRESCRITA EN BRASIL

by J. G. Goldammer^{1/}

The first prescribed burning program in Brazil has been underway since October 1980. It is a part of the scientific and technical cooperation between Brazil and the Federal Republic of Germany. The research and development project is being carried out by Johannes Goldammer, Freiburg University, Germany, and the Institute of Forest Protection of the School of Forestry at Curitiba, Parana, Brazil.

The State of Paraná in the southern part of Brazil shows the typical pattern in deforestation of the Brazil pine (Araucaria angustifolia) forests. Since the mid 1960's the Brazilian government has greatly subsidized afforestation programs. Today pine plantations cover about 400 000 ha in the State of Parana. The most common species are slash pine, loblolly pine, and Caribbean pine.

The growth of the pines is very fast, and the decomposition of the needle litter in the young stands is very slow. Therefore a needle litter build-up results. In fact, as much as 10 - 12 metric tons/ha builds up in 10 to 15 year old stands. Debris from pruning and thinning also accumulates and needle litter and debris together create an extreme fire hazard.

Once again the forest fires during the winter season of 1981 have demonstrated the need for an integrated fire and fuel management system for the new pine plantations; more than 30 000 ha of plantations were lost in the states of Paraná and São Paulo during August and September 1981.

The project has three objectives:

o Practical application

Prescribed burning techniques have to be transferred and adapted to the local situation regarding the different climatic and site conditions. The first steps will be taken in the national forests, the university forests and private forest land.

o Research

Studies are being conducted in fuel management, vegetational and faunistic development after burning, and in the physiological reaction of the pine during and after the fires. A special survey will be made in the ecology of soils and soil nutrition.

o Education

The project plays an important role in the education of forestry students. Participants are the students from the School of Forestry, University of Paraná, and the School for forestry technicians at Irati, Paraná.

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The team: Johannes Goldammer (left) and Odilon Rodrigues Nolf Filho (right). The equipment: (1) Fuel moisture analyzer, (2) drip torches, (3) meteorological instruments and fire temperatures recorder, (4) instruments for determining tree stress.

A 10-year-old slash pine stand in Parana.



Prescribed fire in the same stand, Forest Industries of Klabin do Parana.