

International Fodder Oats Network (IFON)

Breeding oats for environmental and social change



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Industry Interface Support Initiative



Introduction (Adrian Russell)



ctrl+click the URL to view video

https://www.youtube.com/watch?v=x0QrAG_QMp8



- **Our work**
- **Goals**



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Key points

Social enterprise
open to public
and private sector

New members expected
to add germplasm

Other countries
welcome (dependent
on \$ support)

Scope for the inclusion
of ryecorn, triticale and
companion crops



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Background



CV: NZ Makuru
Azad Kashmir, 1979-80

- Shuttle breeding started in the 50s and reached Himalayan Hindu Kush in 1979/80
- Initiative started with NZ – Canada
- Broad adaptation of cvs characterised global potential of the initiative
- Potential to increase food security, climatic resilience and pave the way to social change



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Experience: Nepal 1980 – 2000



Khimti Nepal 1980s, 5 days
walk home, CV NZ Makuru

Built on outcomes from NZ – Canada – Peru – Pakistan initiatives

Bulk importation of seed and distribution throughout the country led by farmers

Included livestock and agronomy support

Used spring and facultative types but also highlighted the importance of winter material as genetic background



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Experience: Nepal 2000 – 2019



Ongoing collaboration: materials are sent from NZ and selected in country across a range of altitudes

Equipment like single head threshers are provided and selected varieties released

Farmers and commercial seed enterprises were established

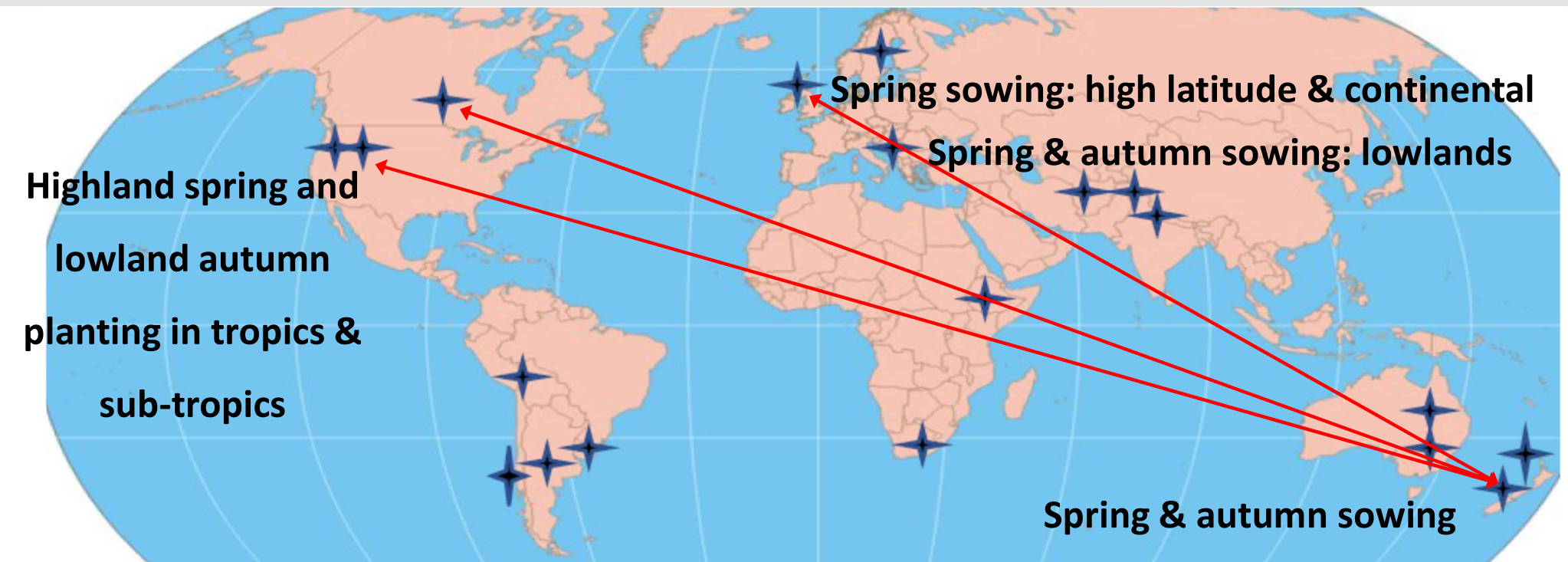


Springboard for the Balkans
and IFON initiatives



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Current spread of NZ fodder oat genetics

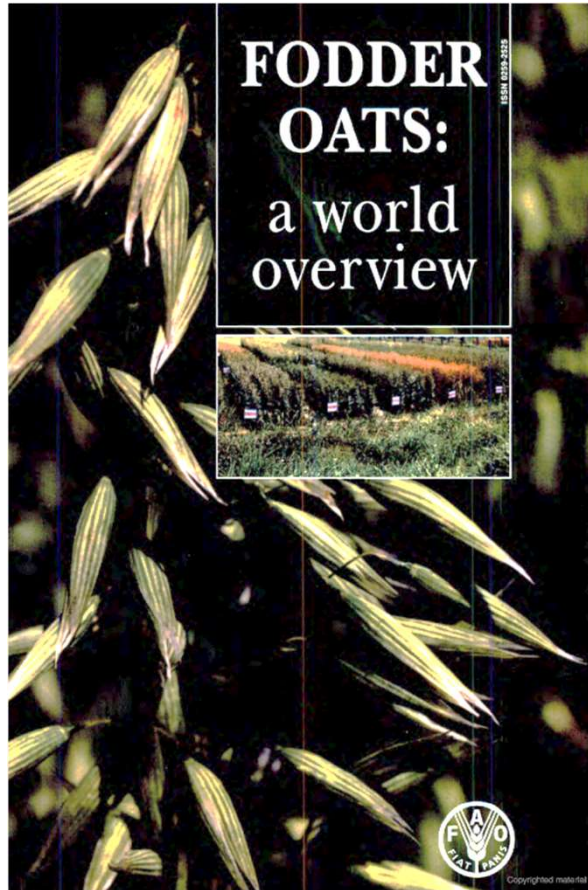


Shuttle breeding allows more than 1 generation/year across a wide range of environments



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Balkans 2020 – 2022



Need for the strategy was identified in the 1990s

Philanthropic assistance requested in 2020: start a Balkan fodder improvement network for impoverished and food insecure families (catalyst being Covid-19 pandemic)

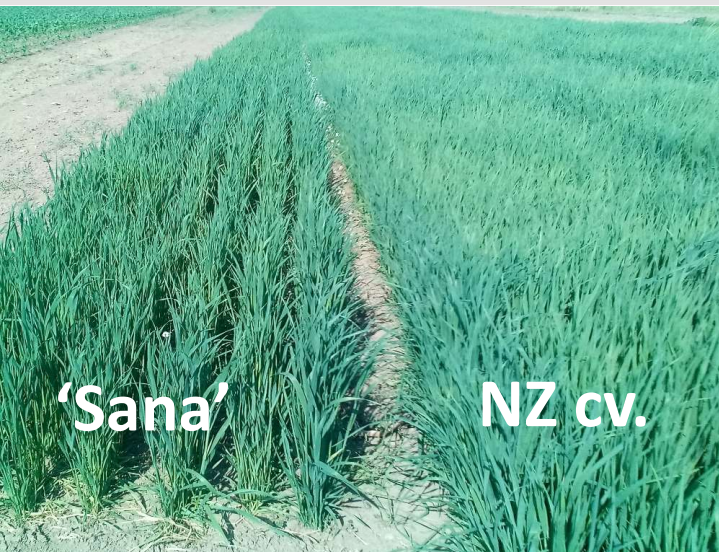
NZ genotypes work as a starting pool of genetic resource

Network will be based on FAO overview and the Nepalese model



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Balkans: start as a self funded initiative



Philanthropic provision of NZ seeds that were planted in 2021 and 2022

Grown in a BiH research station and across 6 farms, with an altitude range from 450 to 800 m



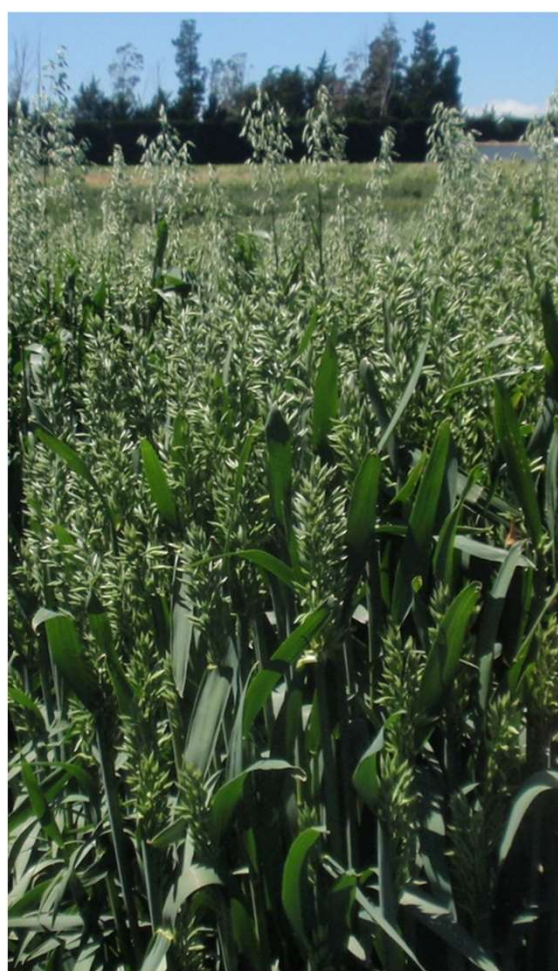
Comparisons against local varieties ('Sana') and selection are being done

Flexiseeder machinery technologies endowed



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Balkans: current progress



Other 39 NZ lines were donated and sowed in NZ in 2021. These were selected for specific phenological and leaf traits

Selected lines were planted during spring 2022 in the Balkans

450 lines endowed from the Banja Luka Institute (BiH) gene bank were sent to the James Hutton Institute (Scotland) to be multiplied. Samples of 250 harvested & being sent to NZ



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Balkans: next steps



Croatia has joined IFON and Turkey has initiated the process. Other Baltic and near-by states also interested

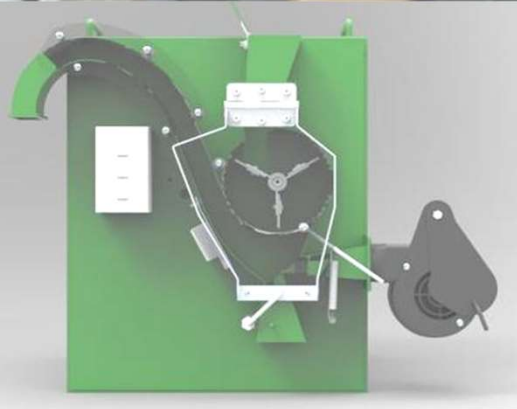


Process of funding application has started (European funding opportunities)



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IFON framework



IFON coordination and facilitation

Humanitarian assistance and climate resilience

Breeding and gene bank support	Agronomical research support	Machinery and technologies
Seed (tech., cert., PVRs)	Industry, harvesting and processing	Livestock integration
International nurseries and material transfer		