



INCA BioShield™

Where Nature Becomes Part of the Protection

A living layer of protection that
reduces fuel, manages vegetation
and strengthens your fire safety
strategy – naturally.



PREDICT

Identify and understand risk



PREVENT

Reduce fuel and control
vegetation



PREPARE

Create defensible, sustainable
protection zones



PROTECT

Combine BioShield™ with
WFS net® for multi-layer
fire protection



LOW GROWING
LOW FUEL LOAD



DROUGHT TOLERANT
MOISTURE RETAINING



REDUCES EROSION
AND DUST



LOW MAINTENANCE
SUSTAINABLE SOLUTION



ADAPTED TO LOCAL
CLIMATE AND ECOSYSTEMS



INCA BioShield™ and WFS net®
Working together for a safer future.

WFS net®
FIRE PROTECTION BARRIER

INCA BioShield™

Where Nature Becomes Part of the Protection

INCA BioShield™ is a concept for biologically enhanced protection zones designed to support vegetation management, reduce wildfire fuel loads, and improve long-term landscape resilience.

By combining carefully selected, low-growing, climate-adapted vegetation with WFS net®, BioShield™ creates an integrated protection system where nature and advanced fire protection technology work together.

The concept is intended for environments where controlling combustible vegetation, reducing maintenance requirements, and establishing sustainable protection zones around valuable assets are essential.

A Living Layer of Protection

Unmanaged land is quickly colonized by grasses, shrubs, and other vegetation. As this vegetation dries, it can become a continuous layer of fine fuel that accelerates wildfire spread.

BioShield™ replaces uncontrolled vegetation with carefully selected ground-cover species that:

- remain naturally low-growing,
- produce relatively low amounts of combustible biomass,
- retain moisture more effectively than many traditional ground covers,
- suppress weeds through dense ground coverage,
- help reduce soil erosion and dust,
- require minimal maintenance once established,
- can be adapted to local climates, soil conditions, and ecosystems.

The result is an attractive, functional, and sustainable protection zone that helps reduce the accumulation of combustible vegetation around buildings, infrastructure, industrial facilities, and other valuable assets where INCA's WFS net® has been prepared for deployment when danger threatens.

BioShield™ and WFS net® – Working Together

WFS net® can be installed vertically to create a highly heat-resistant fire barrier or deployed horizontally to protect vulnerable ground surfaces from embers, radiant heat, and advancing flames.

BioShield™ complements this protection by managing vegetation around, beneath, and adjacent to the installation. By limiting the establishment of tall grasses, shrubs, and other unwanted vegetation, **BioShield™** helps maintain the effectiveness, accessibility, and long-term performance of the **WFS®** protection system.

Together they create a multi-layered protection strategy:

BioShield™ manages the vegetation. **WFS net®** protects against the fire.

Adapted to Local Conditions

BioShield™ is not based on a single plant species.

Each installation is designed using vegetation specifically selected for the local climate, rainfall, temperature, soil conditions, environmental regulations, and ecological requirements.

In temperate climates, suitable species may include *Sedum acre*, *Armeria maritima*, and other drought-tolerant ground covers.

In Mediterranean and arid regions, locally approved succulent species and water-retaining ground covers may be appropriate.

In tropical environments, species such as *Sesuvium portulacastrum*, *Zoysia matrella*, and other locally adapted ground-cover plants may provide suitable alternatives.

Plant selection should always be carried out in cooperation with local experts, ensuring ecological compatibility while avoiding invasive species and protecting biodiversity.

Part of Intelligent Fire Safety

BioShield™ forms part of INCA's vision of **Intelligent Fire Safety** – an integrated approach where digital monitoring, risk assessment, vegetation management, and physical protection systems work together.

The concept supports every stage of the **WFS®** philosophy:

Predict

Identify areas where vegetation, drought, and weather conditions increase wildfire risk.

Prevent

Reduce combustible vegetation and improve long-term vegetation management.

Prepare

Establish permanent protection zones before a wildfire threatens.

Protect

Combine **BioShield™** with **WFS net®** and other **WFS®** technologies to safeguard people, property, forests, critical infrastructure, and natural environments.

INCA BioShield™

A Living Part of Intelligent Fire Safety

Manage the vegetation.

Reduce the fuel.

Prepare the ground.

Strengthen the protection.

Recommended Species by Climate Region

Scandinavia / Northern Europe



White stonecrop
Sedum album



Biting stonecrop
Sedum acre



Thrift
Armeria maritima



Grey hair-grass
Corynephorus canescens



Yarrow
Achillea millefolium

Mediterranean Region



Hardy ice plant
Delosperma cooperi



White stonecrop
Sedum album



Pale stonecrop
Sedum sediforme

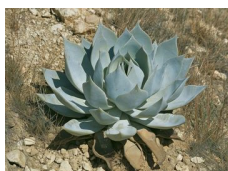


Smooth rupturewort
Herniaria glabra



Sea heath
Frankenia laevis

United States (California)



Chalk dudleya
Dudleya pulverulenta



Broadleaf stonecrop
Sedum spathulifolium



Hardy ice plant
Delosperma cooperi



Creeping sage
Salvia sonomensis



Silver carpet aster
Corethrogyne filaginifolia 'Silver Carpet'

Australia



Pigface
Carpobrotus glaucescens



Creeping boobialla
Myoporum parvifolium



Round-leaved pigface
Disphyma crassifolium subsp. *clavellatum*



Creeping saltbush
Atriplex semibaccata



Muntries
Kunzea pomifera

Southern Africa



Trailing ice plant
Lampranthus spectabilis



Hardy ice plant
Delosperma cooperi



Sour fig
Carpobrotus edulis



Red flames
Crassula capitella

Tropical Regions (Malaysia, Indonesia, Thailand, Vietnam)



Sea purslane
Sesuvium portulacastrum



Pinto peanut
Arachis pintoii



Manila grass
Zoysia matrella



Beach morning glory
Ipomoea pes-caprae

INCA BioShield™ is designed to support vegetation management and reduce wildfire risk. Plant performance will always depend on species selection, climate, maintenance, drought conditions, and local environmental factors. No vegetation should be considered fireproof.