

MANDATE

- Basic and strategic research on management of abiotic stresses in crop plants, livestock, fishes and soil microorganisms
- Impart quality education in abiotic stress management and emerge as a Global Centre of Excellence
- Repository of information on abiotic stresses, mitigation strategies and acceptable policies for knowledge sharing and capacity building
- Develop linkages for holistic management of abiotic and biotic stress factors

MISSION

To build sustainable livelihood in abiotically stressed agro-ecosystems by practicing climate resilient farming systems through a deep insight, adaptation techniques, mitigation strategies and acceptable policies

VISION

Management of abiotic stresses of crop plants, animals, fishes and micro-organisms through genetic, biotechnological and nano-technological tools and creating niches through farming methods for sustainable nutritional and food security and profitability by adopting multidisciplinary approaches and networking.

SIGNIFICANT ACHIEVEMENTS

- Net CO₂ emission of the wheat ecosystem in basaltic soils was 43.1g C m⁻²
- Sugarcane with application of spent wash promoted disintegration of basaltic murrum.
- Indeterminate varieties of soybean were superior under low radiation condition
- A low cost non-destructive image processing tool has been developed for large scale phenotyping
- Leaf chlorophyll fluorescence can be a good indicator of soybean performance under drought conditions
- High nodulating potential of rtx producing *Bradyrhizobium* strains enhances the drought tolerance in soybean
- Silver nanoparticles trapped in zeolites were effective in ammonia removal

- A reagent system was developed for elution of phyllosphere inhabiting microorganisms
- A Multipurpose machine has been developed for stubble shaving, off-barring, root pruning and fertilizer placement in ratoon sugarcane
- *Psoralea Corylifolia* L., harbors salt tolerant plant growth promoting bacteria that enhance in-vitro germination and growth in wheat.

LOCATIONS OF REGIONAL STATIONS

- Nil

FIVE BEST TECHNOLOGIES/PRODUCTS

Institute is in its formative stages thereby technologies are expected in due course of time.

NEW INITIATIVES

- Determination of water production functions of different crops
- Assessment of CO₂ gas fluxes of crops
- Plant phenotyping platform for trait based phenotyping
- Methods to obviate edaphic stresses in orchards

COLLABORATIVE PARTNERS

The institute has taken initiatives for collaborations with ARI, NBPGR, CRIDA, CAZRI, IIPR, DSR, IIWBR, MPKV, PAU, VSBT, NARI, NBAIM etc.

FLAGSHIP PROGRAMMES

- Identification of bioregulator for drought mitigation
- Developing and adopting plant phenomics tools for trait based phenotyping in crop plants
- Crop-weather interaction studies under present and futuristic climate scenario

THRUST AREAS FOR XII PLAN

- Assessment, quantification and development repository of major abiotic stresses.
- Developing screening protocols to identify stress tolerant genetic stocks/strains of crops/animals/fishes.
- Capacity building on abiotic stress research and management through advanced training
- Networking efforts on policy support research for abiotic stress management

EXTERNALLY FUNDED PROJECTS/ CONSULTANCY

Foreign aided projects: Nil
 Other sponsored projects: 9 (DBT, DST, ICAR Network and Extra mural projects & Pvt. Co. Etc.)

STAFF STRENGTH

	Sanctioned	Filled	Vacant	Percentage vacant
Scientific	51	28	23	45
Technical	33	12	21	64
Administrative	21	05	16	76
Supporting	---	---	---	----
Total	105	45	60	57

RAC

Period: 27.02.2014 to 26.02.2017
 Chairman: Dr. K. Narayana Gowda
 Next RAC due for: 27.02.2017 to 26.02.2020.

IMC

Period: 06.03.2014 to 05.03.2017
 Chairman: Dr. P.S. Minhas
 Next IMC due for: 06.03.2017 to 05.03.2020.

RFD & COMPOSITE SCORE FOR 4 YEARS

Year	2012-13	2013-14	2014-15	2015-16
Score	89.5	67.0	98	94

STATUS OF ISO 9001 - Certified

PUBLICATIONS (Previous year)

No. of papers in NAAS rated journals: 23
 No. of papers in score < 6: 0
 No. of papers in scores >6: 23
 Total: 23
 Per scientist per year papers: 23/28
 *Publications from institute: 11
 *Publications from other institutes 12

FINANCIAL OUTLAY

(Rs. in crores)

	XI Plan actual utilization	XII Plan proposed	Last year budget		
			RE	Actual Expenditure	% Utilization
Plan	28.05	159.36	21.41	21.41	100
Non-Plan	0.25	-	7.48	7.41	99.06
Total	28.30	159.36	28.89	28.82	99.76

RESOURCE GENERATION FOR LAST 3 YEARS

(Rs. In lakhs)

2013-14	2014-15	2015-16
22.24	1.15	9.53

Director: Dr. P S Minhas

Tel: 02112-254055, 09403682923

Email: naimdirector@niam.res.in