



**Biorun,  
Experience Healthy Organic life**

Nature Biotechnology Company  
West 8<sup>th</sup> St. Goldasht, Karaj – IRAN  
Tel: +98 (26) 34 80 66 66-7  
Fax:+98 (26) 34 80 45 64

[www.biorun.ir](http://www.biorun.ir)



**Biorun**  
Biological Agriculture Product

**Roshd Afza**





## Phyllosphere bacteria

The phyllosphere, i.e. the above-ground portions of plants, hosts a variety of beneficial bacteria, which can play important roles in growth, health, defense, and performance of the host plants. The positive effects are obtained by a variety of mechanisms such as atmospheric nitrogen fixation, phytohormone production, siderophore production, suppression of plant pathogenic organisms, degradation of organic pollutants, and induction of resistance in host plants against plant pathogens and abiotic stresses.

## RoshdAfza

RoshdAfza is a biological fertilizer formulated based on several phyllosphere bacteria. It is formulated as suspension concentrate (SC) and can be applied for all types of crops including greenhouse and field crops and fruit trees to improve growth and suppress the harmful effects of abiotic and biotic stresses.

## Application dose and methods

RoshdAfza is formulated based on phyllosphere bacteria and thus is suitable for application on aerial parts of plants. Spraying can be performed at any life stages of plants according to the following table.



| Crop type  | Application time  | How to use  |
|--|---|---|
| Crops with small leaf area (cereals, rice, etc.)   | Two stages<br>1- Tillering<br>2- Heading  | In each stage, add 1.5-2 liter of RoshdAfza to appropriate volume of water and spray on one ha. of field. |
| Crops with small leaf area (cereals, rice, etc.)   | Two stages<br>1- 35 days after cultivation<br>2- 60 days after cultivation or at the time of boll formation | In each stage, add 2-3 liter of RoshdAfza to appropriate volume of water and spray on one ha. of field.   |
| Crops with large leaf area (corn, sugarcane, etc.) | Two stages<br>1- 30 days after cultivation<br>2- 60 days after cultivation                                  | In each stage, add 3-5 liter of RoshdAfza to appropriate volume of water and spray on one ha. of field.   |
| Fruit & ornamental trees                           | Two stages<br>1- Early growing season<br>2- mid growing season  | In each stage, add 3-5 liter of RoshdAfza to appropriate volume of water and spray on one ha. of orchard. |

## Benefits

- Contributing towards reduction of the use of chemical fertilizers in agriculture.
- Production of high quality crops with lower contamination to harmful chemical compounds.
- Providing a combination of benefits ranging from nutrient availability to increasing plant defense against abiotic and biotic stressful agents.

