This inoculant guarantees a minimum of 100 million (1x10<sup>8</sup>) viable cells of *Mesorhizobium ciceri* per gram of product.

# This product is not a Plant Food.

# **Product Information**

BioSinc is a dual component, naturally occurring, non-pathogenic bacterial product formulated to include Timac Agro's Patented GZA Complex. These are symbiotic nitrogen-fixing bacteria for use with chickpeas designed to be applied by persons who are trained in the proper methods of handling and applying inoculants to the chickpea acre.

# **Application Rate**

4 lbs per acre

# **Directions for Use**

- BioSinc Granulated Peat for chickpea is pelletized and should be applied through insecticide boxes or granular applicator boxes or through air seeders with a second tank. Separating the seed and the inoculant into two different application devices will ensure targeted application rates of both products are obtained.
- Apply BioSinc Granulated Peat for chickpea inoculant through an approved application device.
- It is preferable to do a product calibration each time the product is used. This will account for slight changes in product characteristics that may occur due to a change in density, dampness, ambient temperature, relative humidity, and general flow of the product at the time of seeding. Directly entering or selecting a calibration number could result in less accurate application rates. To achieve the highest accuracy of application rates, perform an in-field distance calibration.
- This product is to be applied In-Furrow.

# **BioSinc Granule Application Rate Table**

Row Spacing (in)	7.5	15	22	30
Application Rate lb/acre	8	4	2.75	2

Distributed by: **Timac Agro USA** P.O. Box 888 Reading, PA 19607 Made in U.S.A.





### Packaging

- 40 lb bag treats 10 acres
- 640 lb tote treats 160 acres

### **Precautionary Information**

If use of this product by individuals allergic to molds and/ or fungi is unavoidable, wear gloves, safety glasses and a NIOSH-approved respirator. In case of contact with skin or eyes, flush exposed areas with plenty of water. Get medical attention if irritation occurs.

# **Product Storage**

The active ingredient in BioSinc Granulated Peat for chickpea inoculant is a living organism that requires specific storage conditions to ensure viability and product performance. To maintain product viability:

- STORE IN A COOL AND DRY PLACE
- Avoid storage in direct sunlight and store product at temperature under 77 degrees
- Do not allow product to freeze
- Only open when ready to use
- Unused BioSinc Granulated Peat for soybean should be disposed of in accordance with applicable Federal, provincial, and local requirements

# Warranty and Disclaimer Statement

Timac Agro USA guarantees this culture to produce satisfactory nodule formation and nitrogen fixation under favorable conditions of soil and climate when used before expiration date and applied under the manufacturer's specifications, or purchase price will be refunded. A Timac Agro USA representative must be notified of any field complaint within fifty (50) days after planting. Many factors other than nodulation affect crop performance. Timac Agro USA assumes no responsibility for loss or partial loss of crop from any cause whatsoever. This limited warranty is in lieu of all other warranties, expressed or implied. The limited warranty is void where prohibited by law. If you have any questions about this product or any other Timac Agro USA product, call for assistance.

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This inoculant guarantees a minimum of 100 million (1 x  $10^8$ ) viable cells of *Rhizobium leguminosarum* per gram.

### This product is not a Plant Food.

#### **Product Information**

BioSinc is a dual-component, naturally occurring, nonpathogenic bacterial product formulated to include Timac Agro's Patented GZA Complex. These are symbiotic nitrogen-fixing bacteria for use with peas and lentils designed to be applied by persons who are trained in the proper methods of handling and applying inoculants to the pea and lentil acre.

### **Application Rate**

4 lbs per acre

#### **Directions for Use**

- **BioSinc Granulated Peat for Peas and Lentils** is pelletized and should be applied through insecticide boxes or granular applicator boxes or through air seeders with a second tank. Separating the seed and the inoculant into two different application devices will ensure targeted application rates of both products are obtained.
- Apply **BioSinc Granulated Peat for Peas and Lentils** inoculant through an approved application device.
- It is preferable to do a product calibration each time the product is used. This will account for slight changes in product characteristics that may occur due to a change in density, dampness, ambient temperature, relative humidity, and general flow of the product at the time of seeding. Directly entering or selecting a calibration number could result in less accurate application rates. To achieve the highest accuracy of application rates, perform an in-field dis-tance calibration.
- This product is to be applied In-Furrow.

### **BioSinc Granule Application Rate Table**

Row Spacing (in)	7.5	15	22	30
Application Rate lb/acre	8	4	2.75	2

### Packaging

- 40 lb bag treats 10 acres
- 640 lb tote treats 160 acres

Distributed by: **Timac Agro USA** P.O. Box 888, Reading, PA 19607 Made in U.S.A.





### **User Tips**

- Fill granular compartment in field, just before use.
- Always use seeder tank filling screens to remove any granular clumps that may have formed during storage and transport.
- Do not place granules in the same compartment as seeds, pesticides, or fertilizer.
- It is recommended to fill granular compartment to no more than 30–50% capacity, especially under humid seeding conditions.
- Check/clean metering mechanisms regularly for optimal product flowability especially under humid seeding conditions.
- Remove unused granules from tank and metering system at the end of each day's planting. Do not leave granular inoculant in seeder tank overnight.
- Applying granules at less than recommended rate may result in less than ideal particle distribution in the soil, resulting in decreased nodulation performance.
- Product performance may be reduced in soil with high nitrogen levels or when applied with high levels of nitrogen fertilizer.

#### **Precautionary Information**

If use of this product by individuals allergic to molds and/ or fungi is unavoidable, wear gloves, safety glasses and a NIOSH-approved respirator. In case of contact with skin or eyes, flush exposed areas with plenty of water. Get medical attention if irritation occurs.

### **Product Storage**

The active ingredient in **BioSinc Granulated Peat for Peas and Lentils** inoculant is a living organism that requires specific storage conditions to ensure viability and product performance. To maintain prod-uct viability:

- STORE IN A COOL AND DRY PLACE.
- Avoid storage in direct sunlight and store product at temperatures under 77 degrees.
- Do not allow product to freeze.
- Only open when ready to use.
- Unused BioSinc Granulated Peat for Peas and Lentils should be disposed of in accordance with applicable Federal, provincial, and local requirements.

#### **Warranty and Disclaimer Statement**

Timac Agro USA guarantees this culture to produce satisfactory nod-ule formation and nitrogen fixation under favorable conditions of soil and climate when used before expiration date and applied under the manufacturer's specifications, or purchase price will be refunded. A Timac Agro USA representative must be notified of any field com-plaint within fifty (50) days after planting. Many factors other than nodulation affect crop performance. Timac Agro USA assumes no re-sponsibility for loss or partial loss of crop from any cause whatsoever. This limited warranty is in lieu of all other warranties, expressed or implied. This limited warranty is void where prohibited by law. If you have any questions about this product or any other Timac Agro USA product, call for assistance.

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EPA Est. No. 33762-IA-001

# Net Contents: 640 lbs

Lot Number:

Expiration Date:

This inoculant guarantees a minimum of 200 million (2x10<sup>8</sup>) viable cells of *Rhizobium leguminosarum biovar viciae* per gram.

# This product is not a Plant Food.

### **Product Information**

These are symbiotic nitrogen-fixing bacteria for use with peas and lentils designed to be applied through an approved application device at a retail location by persons who are trained in the proper methods of handling and applying inoculants to the peas and lentils seeds.

# **Application Rate**

2.75 oz per 50 pounds

# **Directions for Use**

• BioSinc High-Adhesion Peat for peas and lentils can be mixed in the drill box or applied to the seed while being augered into the drill.

# **Drill Box Method**

 Fill drill box 1/4 or 1/3 full of seed and mix inoculant thoroughly until seed is uniformly coated. Continue with same process until drill is full of seed and thoroughly inoculated.

### **Auger Method**

 Apply BioSinc High-Adhesion Peat at the recommended rate through a dry powder applicator into the hopper of an auger as the seed is being augered into the drill. The inoculant will mix thoroughly onto the seed from the action of the auger.

# **Adverse Environmental Condition**

- In planting situations where peas and lentils have never been grown or haven't been grown for 3 years, it is recommended that BioSinc High-Adhesion Peat be used at 2x the normal rate or use BioSinc High-Adhesion Peat in combination with BioSinc Granular inoculant.
- Where high levels of nitrogen are available in the soil or over 30 lbs of available nitrogen have been applied to the soil, rhizobia inoculants will not perform at optimum level.



# Packaging

Treats 1500# of seed, 25 bushel Net Weight 82.5 oz. Package Configuration: 6 units per case, 48 cases per pallet

### **Precautionary Information**

Avoid prolonged or repeated skin contact and inhalation. Timac Agro USA recommends the use of a dust mask, safety glasses, and protective gloves when applying peat-based inoculants.

### **Product Storage**

- Store in a cool, dry place out of direct sunlight
- Store product between 40°F and 77°F
- Open package only when ready to use
- Use before expiration date
- BioSinc High-Adhesion Peat carries a one-season shelf life

# **Warranty and Disclaimer Statement**

Seller/manufacturer guarantee the culture as described on the product will produce satisfactory nodule formation and nitrogen fixation under favorable conditions of soil and climate when used before expiration date and applied under the supplier's specifications, or purchase price will be refunded. Seller/ manufacturer must be notified of any field complaint within fifty (50) days after planting. Buyer/end user acknowledges and agrees that many factors other than nodulation affect crop performance. Seller/ manufacturer assume no responsibility for loss or partial loss of crop from any cause whatsoever. This limited warranty is in lieu of all other warranties, expressed or implied. The limited warranty is void where prohibited by law.

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This inoculant guarantees a minimum of 100 million  $(1 \times 10^8)$  viable cells of *Bradyrhizobium japonicum* per gram of product.

# This product is not a Plant Food.

#### **Product Information**

BioSinc is a dual-component, naturally occurring, non-pathogenic bacterial product formulated to include Timac Agro's Patented GZA Complex. These are symbiotic nitrogen-fixing bacteria for use with soybeans designed to be applied by persons who are trained in the proper methods of handling and applying inoculants to the soybean acre.

#### **Application Rate**

4 lbs per acre

### **Directions for Use**

- **BioSinc Granulated Peat for Soybean** is pelletized and should be applied through insecticide boxes or granular applicator boxes or through air seeders with a second tank. Separating the seed and the inoculant into two different application devices will ensure targeted application rates of both products are obtained.
- Apply **BioSinc Granulated Peat for Soybean** inoculant through an approved application device.
- It is preferable to do a product calibration each time the product is used. This will account for slight changes in product characteristics that may occur due to a change in density, dampness, ambient temperature, relative humidity, and general flow of the product at the time of seeding. Directly entering or selecting a calibration number could result in less accurate application rates. To achieve the highest accuracy of application rates, perform an in-field distance calibration.

#### • This product is to be applied In-Furrow.

### **BioSinc Granule Application Rate Table**

Row Spacing (in)	7.5	15	22	30
Application Rate lb/acre	8	4	2.75	2

#### Packaging

• 40 lb bag treats 10 acres

• 640 lb tote treats 160 acres.

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Timac AGRO

#### **User Tips**

- Fill granular compartment in field, just before use.
- Always use seeder tank filling screens to remove any granular clumps that may have formed during storage and transport.
- Do not place granules in the same compartment as seeds, pesticides, or fertilizer.
- It is recommended to fill granular compartment to no more than 30–50% capacity, especially under humid seeding conditions.
- Check/clean metering mechanisms regularly for optimal product flowability especially under humid seeding conditions.
- Remove unused granules from tank and metering system at the end of each day's planting. Do not leave granular inoculant in seeder tank overnight.
- Applying granules at less than recommended rate may result in less than ideal particle distribution in the soil, resulting in decreased nodulation performance.
- Product performance may be reduced in soil with high nitrogen levels or when applied with high levels of nitrogen fertilizer.

#### **Precautionary Information**

If use of this product by individuals allergic to molds and/ or fungi is unavoidable, wear gloves, safety glasses and a NIOSH-approved respirator. In case of contact with skin or eyes, flush exposed areas with plenty of water. Get medical attention if irritation occurs.

#### **Product Storage**

The active ingredient in **BioSinc Granulated Peat for Soybean** inoculant is a living organism that requires specific storage conditions to ensure viability and product performance. To maintain product viability:

STORE IN A COOL AND DRY PLACE.

- Avoid storage in direct sunlight and store product at temperatures under 77 degrees.
- Do not allow product to freeze.
- Only open when ready to use.
- Unused BioSinc Granulated Peat for Soybean should be disposed of in accordance with applicable Federal, provincial, and local requirements.

#### **Warranty and Disclaimer Statement**

Timac Agro USA guarantees this culture to produce satisfactory nod-ule formation and nitrogen fixation under favorable conditions of soil and climate when used before expiration date and applied under the manufacturer's specifications, or purchase price will be refunded. A Timac Agro USA representative must be notified of any field com-plaint within fifty (50) days after planting. Many factors other than nodulation affect crop performance. Timac Agro USA assumes no re-sponsibility for loss or partial loss of crop from any cause whatsoever. This limited warranty is in lieu of all other warranties, expressed or implied. This limited warranty is void where prohibited by law. If you have any questions about this product or any other Timac Agro USA product, call for assistance.

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EPA Est. No. 33762-IA-001

# Net Contents: 640 lbs

Lot Number:

Expiration Date:

This inoculant guarantees a minimum of 200 million (2x10<sup>8</sup>) viable cells of *Bradyrhizobium japonicum* per gram.

### This product is not a Plant Food.

### **Product Information**

These are symbiotic nitrogen-fixing bacteria for use with soybeans designed to be applied through an approved application device at a retail location by persons who are trained in the proper methods of handling and applying inoculants to the soybean seeds.

### **Application Rate**

2.75 oz per 50 pounds

### **Directions for Use**

 BioSinc High-Adhesion Peat for soybeans can be mixed in the drill box or applied to the seed while being augered into the drill

### **Drill Box Method**

• Fill drill box 1/4 or 1/3 full of seed and mix inoculant thoroughly until seed is uniformly coated. Continue with same process until drill is full of seed and thoroughly inoculated.

### Auger Method

 Apply BioSinc High-Adhesion Peat at the recommended rate through a dry powder applicator into the hopper of an auger as the seed is being augered into the drill. The inoculant will mix thoroughly onto the seed from the action of the auger.

### **Adverse Environmental Condition**

- In planting situations where Soybeans have never been grown or haven't been grown for 3 years, it is recommended that BioSinc High-Adhesion Peat be used at 2x the normal rate or use BioSinc High-Adhesion Peat in combination with BioSinc Liquid inoculant or BioSinc Granular inoculant.
- Where high levels of nitrogen are available in the soil or over 30 lbs of available nitrogen have been applied to the soil, rhizobia inoculants will not perform at optimum level.



### Packaging

Treats 1500# of seed, 30 seed units Net Weight 82.5 oz Package Configuration: 6 units per case, 48 cases per pallet

### **Precautionary Information**

Avoid prolonged or repeated skin contact and inhalation. Timac Agro USA recommends the use of a dust mask, safety glasses, and protective gloves when applying peat-based inoculants.

### **Product Storage**

- Store in a cool, dry place out of direct sunlight
- Store product between 40°F and 77°F
- Open package only when ready to use
- Use before expiration date
- BioSinc High-Adhesion Peat carries a one-season shelf life

### Warranty and Disclaimer Statement

Timac Agro USA guarantees this culture to produce satisfactory nodule formation and nitrogen fixation under favorable conditions of soil and climate when used before expiration date and applied under the manufacturer's specifications, or purchase price will be refunded. A Timac Agro USA representative must be notified of any field complaint within fifty (50) days after planting. Many factors other than nodulation affect crop performance. Timac Agro USA assumes no responsibility for loss or partial loss of crop from any cause whatsoever. This limited warranty is in lieu of all other warranties, expressed or implied. The limited warranty is void where prohibited by law. If you have any questions about this product or any other Timac Agro USA product, call for assistance.

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This inoculant guarantees a minimum of 1x10<sup>10</sup> cfu/mL of *Bradyrhizobium japonicum.* 

### This product is not a Plant Food.

### SHAKE WELL BEFORE USE

### **Product Information**

BioSinc is a dual component, naturally occurring, non-pathogenic bacterial product formulated to include Timac Agro's Patented GZA Complex. These are symbiotic nitrogen-fixing bacteria for use with soybeans designed to be applied through an approved application device at a retail location by persons who are trained in the proper methods of handling and applying inoculants to the soybean seeds.

# **Application Rate**

1.5 oz/cwt (2.0 oz/cwt with GZA)

# **Directions for Use**

- Ensure treater is properly cleaned and calibrated prior to use.
- Shake the bladder well before pouring contents into the application tank.
- Pour liquid inoculant bladder and GZA Complex bottle into application tank.
- Start application tank agitation.
- Apply at recommended rate.
- Prepare only as much BioSinc amount to be used in a day.

# **Seed Treatment Compatibility**

- To maximize on-seed survivability of the rhizobia apply BioSinc in a separate tank from all other seed treatment products. A simultaneous application method is recommended when additional active chemical, polymer, colorant and nutritionals are also applied to the seed.
- Additional water, polymers, dyes, beyond what is required to treat seeds is not recommended.
- Do not use chlorinated water as it will reduce the viability of the inoculant.
- User may choose to apply BioSinc in combination with other seed treatment products. For technical assistance when using this product, call 1-800-545-5474.

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### Packaging

- 4 x 50 Units package each package contains 37.5 fl oz
- 2 x 200 Units package each package contains 150 fl oz

### **Precautionary Information**

If use of this product by individuals allergic to molds and/ or fungi is unavoidable, wear gloves, safety glasses and a NIOSH-approved respirator. In case of contact with skin or eyes, flush exposed areas with plenty of water. Get medical attention if irritation occurs.

### **Product Storage**

- Store in a cool, dry place out of direct sunlight
- Store product between 40°F and 77°F
- Open package only when ready to use
- Use before expiration date and within 24 hours of opening bladder.

# **Container Disposal**

Nonrefillable container. Do not reuse or refill this container. Place container in trash or offer for recycling, if available. Contact an approved waste disposal facility for disposal instructions.

### Warranty and Disclaimer Statement

Timac Agro USA guarantees this culture to produce satisfactory nodule formation and nitrogen fixation under favorable conditions of soil and climate when used before expiration date and applied under the manufacturer's specifications, or purchase price will be refunded. A Timac Agro USA representative must be notified of any field complaint within fifty (50) days after planting. Many factors other than nodulation affect crop performance. Timac Agro USA assumes no responsibility for loss or partial loss of crop from any cause whatsoever. This limited warranty is in lieu of all other warranties, expressed or implied. The limited warranty is void where prohibited by law. If you have any questions about this product or any other Timac Agro USA product, call 610-375-7272 for assistance.

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