Some antibiotics derived from fungi

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| --- | --- |
| Antibiotic | Fungi from which derived |
| *Patulin* | *Aspergillus clavatus* |
| *Fumigatin* | *Aspergillus fumigatius* |
| *Viridin* | *Gliocladium virens* |
| *Griseofulvin* | *Penicillium griseofulvum* |
|  | *Penicillium nigricans* |
| *Penicillin* | *Penicillium chrysogenum* |
|  | *Penicillium notatum* |

**Some products derived from fungi**

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| Industrial Product | Fungi from a which derived |
| Oxalic acid | *Aspergillus niger* |
| Lactic acid | *Rhizopus oryzae* |
| Citric acid | *Aspergillus niger, Citromyces pfefferiaur* |
| Gluconic acid | *Penicillium prupurogenum* |

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Some vitamins derived from fungi

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| Vitamins | Fungi from a which derived |
| Vitamin A | Rhodoto lagracilis |
| Vitamin B12 | Eremothecum ashyii |
| Thiamine B1 | Saccharomyces cerevisiae |
| Riboflavin B 12 | Saccharomyces cerevisiae |

25 diseases caused by fungi in plants

|  |  |
| --- | --- |
| Name Disease | Name Fungus |
| 1. Ergot of rye | *Claviceps purpurea* |
| 1. Late blight of potato | *Phytophthora infestens* |
| 1. Early blight of potato, tomato | *Alternaria solani* |
| 1. White rust of Crucifer | *Albugo candida* |
| 1. Red rot of sugarcane | *Colletotrichum falcatum* |
| 1. Loose smut of wheat | *Ustilago tritici* |
| 1. Smut of corn | *Ustilago maydis* |
| 1. Flag smut of oat | *Ustilago avenae* |
| 1. Covered smut of barley | *Ustilago hordei* |
| 1. Covered smut of oat | *Ustilago kolleri* |
| 1. Stem rust of wheat | *Puccinia graminis tritici* |
| 1. Mildew of cereals | *Erysiphe graminicola* |
| 1. Downy mildew of cereals | *Sclerospora graminicola* |
| 1. Downy mildew of grapes | *Plasmopara viticola* |
| 1. Brown rust of wheat | *Puccinia recondita* |
| 1. Black rust of wheat | *Puccinia graminis-triticit* |
| 1. Brown rust of wheat | *Puccinia recondita* |
| 1. Yellow rust of wheat | *Puccinia striiformis* |
| 1. Damping off of seedlings | *Pythium spp.* |
| 1. Blast of rice | *Pyricularia oryzae* |
| 1. Powdery mildew | *Erysiphe polygoni* |
| 1. Wilt of gram | *Fusarium orthaceras* |
| 1. Bakanese disease and food rot of rice | *Gibberalla fujikuroi* |
| 1. Leaf spot of oats | *Helminthosporium avenae* |
| 1. Brown leaf spot of rice | *Helminthosporium oryzae* |

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Some antibiotics derived from fungi

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| --- | --- |
| Antibiotic | Fungi from which derived |
| 1. *Patulin* | 1. *Aspergillus fumigatius* |
| 1. *Fumigatin* | 1. *Aspergillus clavatus* |
| 1. *Viridin* | 1. *Penicillium chrysogenum*   *Penicillium notatum* |
| 1. *Griseofulvin* | 1. *Penicillium griseofulvum*   *Penicillium nigricans* |
| 1. *Penicillin* | 1. *Gliocladium virens* |

1. 1(b), 2(a), 3(e),5 (c), 4(d)
2. 1(a), 2(b), 3(c),5 (d), 4(e)
3. 1(e), 2(d), 3(c),5 (b), 4(a)
4. 1(d), 2(c), 3(b),5 (a), 4(e)

Some products derived from fungi

|  |  |
| --- | --- |
| Industrial Product | Fungi from a which derived |
| 1. Oxalic acid | 1. *Penicillium prupurogenum* |
| 1. Lactic acid | 1. *Aspergillus niger, Citromyces pfefferiaur* |
| 1. Citric acid | 1. *Rhizopus oryzae* |
| 1. Gluconic acid | 1. *Aspergillus niger* |

1. 1(a), 4(b), 2(c), 3(d)
2. 1(d), 4(c), 2(b), 3(a)
3. 1(c), 4(b), 2(a), 3(d)
4. 1(d), 4(b), 2(c), 3(a)

Some vitamins derived from fungi

|  |  |
| --- | --- |
| Vitamins | Fungi from a which derived |
| 1. Vitamin A | 1. Saccharomyces cerevisiae |
| 1. Vitamin B12 | 1. Saccharomyces cerevisiae |
| 1. Thiamine B1 | 1. Rhodoto lagracilis |
| 1. Riboflavin B 12 | 1. Eremothecum ashyii |

1. 1(a), 3(c), 2(d), 4(b)
2. 1(c), 3(a), 2(d), 4(b)
3. 1(a), 3(b), 2(c), 4(d)
4. 1(c), 3(b), 2(a), 4(d)

25 diseases caused by fungi in plants

|  |  |
| --- | --- |
| Name Disease | Name Fungus |
| 1. Ergot of rye | 1. *Colletotrichum falcatum* |
| 1. Late blight of potato | 1. *Albugo candida* |
| 1. Early blight of potato, tomato | 1. *Alternaria solani* |
| 1. White rust of Crucifer | 1. *Phytophthora infestens* |
| 1. Red rot of sugarcane | 1. *Claviceps purpurea* |

1. 1(a), 5(b), 2(c), 4(d), 3, (e)
2. 1(d), 5(c), 2(b), 4(a), 3, (e)
3. 1(c), 5(b), 2(a), 4(d), 3, (e)
4. 1(e), 5(a), 2(d), 4(b), 3, (c)

|  |  |
| --- | --- |
| Name Disease | Name Fungus |
| 1. Loose smut of wheat | 1. *Ustilago maydis* |
| 1. Smut of corn | 1. *Ustilago tritici* |
| 1. Flag smut of oat | 1. *Ustilago kolleri* |
| 1. Covered smut of barley | 1. *Ustilago hordei* |
| 1. Covered smut of oat | 1. *Ustilago avenae* |

1. 1(b), 2(a), 3(e), 5(c), 4(d)
2. 1(a), 2(b), 3(c), 5(d), 4(e)
3. 1(e), 2(d), 3(c), 5(b), 4(a)
4. 1(d), 2(c), 3(b), 5(a), 4(e)

|  |  |
| --- | --- |
| Name Disease | Name Fungus |
| 1. Stem rust of wheat | 1. *Plasmopara viticola* |
| 1. Mildew of cereals | 1. *Sclerospora graminicola* |
| 1. Downy mildew of cereals | 1. *Erysiphe graminicola* |
| 1. Downy mildew of grapes | 1. *Puccinia graminis tritici* |
| 1. Brown rust of wheat | 1. *Puccinia recondita* |

1. 1(a), 4(b), 2(c), 3(d), 5(e)
2. 1(d), 4(c), 2(b), 3(a), 5(e)
3. 1(d), 4(a), 2(c), 3(b), 5(e)
4. 1(c), 4(d), 2(b), 3(a), 5(e)

|  |  |
| --- | --- |
| Name Disease | Name Fungus |
| 1. Black rust of wheat | 1. *Puccinia striiformis* |
| 1. Brown rust of wheat | 1. *Pyricularia oryzae* |
| 1. Yellow rust of wheat | 1. *Puccinia graminis-triticit* |
| 1. Damping off of seedlings | 1. *Pythium spp.* |
| 1. Blast of rice | 1. *Puccinia recondita* |

1. 1(a), 3(b), 2(c), 5(d), 4(e)
2. 1(c), 3(a), 2(e), 5(b), 4(d)
3. 1(d), 3(c), 2(b), 5(a), 4(e)
4. 1(c), 3(d), 2(b), 5(a), 4(e)

|  |  |
| --- | --- |
| Name Disease | Name Fungus |
| 1. Powdery mildew | 1. *Fusarium orthaceras* |
| 1. Wilt of gram | 1. *Erysiphe polygoni* |
| 1. Bakanese disease and food rot of rice | 1. *Helminthosporium avenae* |
| 1. Leaf spot of oats | 1. *Gibberalla fujikuroi* |
| 1. Brown leaf spot of rice | 1. *Helminthosporium oryzae* |

1. 1(a), 2(b), 3(c), 4(d), 5(e)
2. 1(b), 2(a), 3(c), 4(d), 5(e)
3. 1(c), 2(a), 3(b), 4(d), 5(e)
4. 1(b), 2(a), 3(d), 4(c), 5(e)

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Some antibiotics derived from fungi

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| --- | --- |
| Antibiotic | Fungi from which derived |
| 1. *Patulin* | 1. *Aspergillus fumigatius* |
| 1. *Fumigatin* | 1. *Aspergillus clavatus* |
| 1. *Viridin* | 1. *Penicillium chrysogenum*   *Penicillium notatum* |
| 1. *Griseofulvin* | 1. *Penicillium griseofulvum*   *Penicillium nigricans* |
| 1. *Penicillin* | 1. *Gliocladium virens* |

1. **1(b), 2(a), 3(e),5 (c), 4(d)**
2. 1(a), 2(b), 3(c),5 (d), 4(e)
3. 1(e), 2(d), 3(c),5 (b), 4(a)
4. 1(d), 2(c), 3(b),5 (a), 4(e)

**Some products derived from fungi**

|  |  |
| --- | --- |
| Industrial Product | Fungi from a which derived |
| 1. Oxalic acid | 1. *Penicillium prupurogenum* |
| 1. Lactic acid | 1. *Aspergillus niger, Citromyces pfefferiaur* |
| 1. Citric acid | 1. *Rhizopus oryzae* |
| 1. Gluconic acid | 1. *Aspergillus niger* |

1. 1(a), 4(b), 2(c), 3(d)
2. 1(d), 4(c), 2(b), 3(a)
3. 1(c), 4(b), 2(a), 3(d)
4. **1(d), 4(b), 2(c), 3(a)**

Some vitamins derived from fungi

|  |  |
| --- | --- |
| Vitamins | Fungi from a which derived |
| 1. Vitamin A | 1. Saccharomyces cerevisiae |
| 1. Vitamin B12 | 1. Saccharomyces cerevisiae |
| 1. Thiamine B1 | 1. Rhodoto lagracilis |
| 1. Riboflavin B 12 | 1. Eremothecum ashyii |

1. 1(a), 3(c), 2(d), 4(b)
2. **1(c), 3(a), 2(d), 4(b)**
3. 1(a), 3(b), 2(c), 4(d)
4. 1(c), 3(b), 2(a), 4(d)

**25 diseases caused by fungi in plants**

|  |  |
| --- | --- |
| Name Disease | Name Fungus |
| 1. Ergot of rye | 1. *Colletotrichum falcatum* |
| 1. Late blight of potato | 1. *Albugo candida* |
| 1. Early blight of potato, tomato | 1. *Alternaria solani* |
| 1. White rust of Crucifer | 1. *Phytophthora infestens* |
| 1. Red rot of sugarcane | 1. *Claviceps purpurea* |

1. 1(a), 5(b), 2(c), 4(d), 3, (e)
2. 1(d), 5(c), 2(b), 4(a), 3, (e)
3. 1(c), 5(b), 2(a), 4(d), 3, (e)
4. **1(e), 5(a), 2(d), 4(b), 3, (c)**

|  |  |
| --- | --- |
| Name Disease | Name Fungus |
| 1. Loose smut of wheat | 1. *Ustilago maydis* |
| 1. Smut of corn | 1. *Ustilago tritici* |
| 1. Flag smut of oat | 1. *Ustilago kolleri* |
| 1. Covered smut of barley | 1. *Ustilago hordei* |
| 1. Covered smut of oat | 1. *Ustilago avenae* |

1. **1(b), 2(a), 3(e), 5(c), 4(d)**
2. 1(a), 2(b), 3(c), 5(d), 4(e)
3. 1(e), 2(d), 3(c), 5(b), 4(a)
4. 1(d), 2(c), 3(b), 5(a), 4(e)

|  |  |
| --- | --- |
| Name Disease | Name Fungus |
| 1. Stem rust of wheat | 1. *Plasmopara viticola* |
| 1. Mildew of cereals | 1. *Sclerospora graminicola* |
| 1. Downy mildew of cereals | 1. *Erysiphe graminicola* |
| 1. Downy mildew of grapes | 1. *Puccinia graminis tritici* |
| 1. Brown rust of wheat | 1. *Puccinia recondita* |

1. 1(a), 4(b), 2(c), 3(d), 5(e)
2. 1(d), 4(c), 2(b), 3(a), 5(e)
3. **1(d), 4(a), 2(c), 3(b), 5(e)**
4. 1(c), 4(d), 2(b), 3(a), 5(e)

|  |  |
| --- | --- |
| Name Disease | Name Fungus |
| 1. Black rust of wheat | 1. *Puccinia striiformis* |
| 1. Brown rust of wheat | 1. *Pyricularia oryzae* |
| 1. Yellow rust of wheat | 1. *Puccinia graminis-triticit* |
| 1. Damping off of seedlings | 1. *Pythium spp.* |
| 1. Blast of rice | 1. *Puccinia recondita* |

1. 1(a), 3(b), 2(c), 5(d), 4(e)
2. **1(c), 3(a), 2(e), 5(b), 4(d)**
3. 1(d), 3(c), 2(b), 5(a), 4(e)
4. 1(c), 3(d), 2(b), 5(a), 4(e)

|  |  |
| --- | --- |
| Name Disease | Name Fungus |
| 1. Powdery mildew | 1. *Fusarium orthaceras* |
| 1. Wilt of gram | 1. *Erysiphe polygoni* |
| 1. Bakanese disease and food rot of rice | 1. *Helminthosporium avenae* |
| 1. Leaf spot of oats | 1. *Gibberalla fujikuroi* |
| 1. Brown leaf spot of rice | 1. *Helminthosporium oryzae* |

1. 1(a), 2(b), 3(c), 4(d), 5(e)
2. 1(b), 2(a), 3(c), 4(d), 5(e)
3. 1(c), 2(a), 3(b), 4(d), 5(e)
4. **1(b), 2(a), 3(d), 4(c), 5(e)**