- (1) 2002 年の集計によると，世界で売れている農薬ベスト 10 は次の通りである．この中から 4 つ選んで，その化学構造を示し作用メカニズムを説明せよ．

- 1. glyphosate

  2. imidacloprid

  3. azoxystrobin

  4. malathion

  5. kresoxim-methyl

  6. paraquat-dichloride

  7. fipronil

  8. pendimethalin

  9. acephate

  10. 2,4-D

- (2) 次にあげる生体成分と農薬との関連を述べよ．

- 1. キチン

  2. メラニン

  3. γ-アミノ酪酸

- (3) 次の文は，ある農薬会社が自社の新製品”Atlantis”について説明したものである．これに関して問に答えよ．

- There is a steadily increasing demand for cereals world-wide, and herbicides are playing an essential role in securing the harvest. More than 40 different major grass weed species are able to cause considerable damage in the approximately 50 million hectares of cereals cultivated around the world. The harvest is reduced in both size and quality. With Atlantis, we are now able to offer a selective post-emergence herbicide that opens new perspectives in cereal production through its effective and reliable action against a broad spectrum of grass weeds.

  Atlantis represents the latest generation of the sulfonylurea-herbicides, and contains the active substance mesomaxx®. It is applied as a WG formulation that also contains iodosulfuron and mefenpyr-diethyl (30 + 6 + 90 g/kg). Mefenpyr-diethyl is a so-called safener, which ensures that the herbicidal components of the product are metabolised quickly in the wheat plant, without compromising activity against grass weeds. It sounds counter-intuitive, but Atlantis really does give post-emergence control of grass weeds whilst being selective in wheat, which is also a grass, botanically speaking.

  注　WG formulation: 水分散型粒剤

- 問 1. Atlantis とは何か. 簡単に説明せよ

  問 2. この農薬のどのようなメカニズムで作用を発揮すると考えられるか.

  問 3. 下線を引いた成分の役割を簡単に説明せよ.

- (4) 世間で無農薬野菜が好まれる理由について考察せよ.