New Energy Source for the Poor

0 What are the processed seeds of the jatropha planet used for?

Paragraph 2 tells us "…*the seeds of the jatropha plant can be processed into lower-polluting biodiesel than fossil diesel ….*"

Therefore, the correct answer is **producing biodiesel** or **producing lower-polluting biodiesel.**

Q1 What must be done to the seed cake before it can be used?

In paragraph 3 we learn that seed cake, *"…..can be used as fertilizer and animal feed after detoxification".* In other words, first it must be detoxified and then it can be used

Therefore, the correct answer is **It must be detoxified.**

Q2 What advantage does jatropha have over other common biofuel sources? Give one answer.

To locate the answer we must first find a statement which compares jatropha and these other sources. Paragraph 4 begins with the words, "*Unlike other biofuel crops, such as maize, jatropha…*" which tells us a comparison is to be made. First, we are told, "…*it is not used for food".* Second, "…*it can be grown on marginal or degraded lands where food crops cannot grow….."* Third *"….animals do not graze on it".*

A further advantage can be found in paragraph 6 where we learn that using "….*cooking stoves that run on jatropha oil is also healthier*" than using a traditional stove.

Therefore, possible answers to Q2 include **not used /grown for food**, **grown on marginal/degraded land**, **not eaten by animals** and **is healthier for cooking.**

Q3 How can growing jatropha help women? Give <u>one</u> answer.

Paragraph 5 explains how growing jatropha is particularly "…*beneficial to women*….", in other words how it *helps* women. At the end of the paragraph it states using jatropha oil can "…*reduce the amount of work* [women] *have to do*."

Further information about the types of work is found in paragraph 6 which tells us "… *women do not have to spend time gathering fuel wood*…"

Therefore, possible answers to Q3 include **reduces their (women's) workload** or **reduces fuel-gathering /wood-gathering activities.**

Q4 How can jatropha help people on small farms? Give <u>one</u> answer.

We already know from paragraph 2 that the seeds of the jatropha plant can be processed into biodiesel, which is why jatropha is described as an "*energy crop*" in paragraph 8.

As an energy crop, it can help smallholder farmers cope with the problems mentioned in paragraph 7. First of all it can help them to meet the "…*increasing local demand for energy in rural areas".* Second, it can help them deal with "*economic and environmental pressure on agricultural lands*".

Therefore, possible answers to Q4 include **meeting local fuel /energy demands, deal with** or **relieve economic/environmental pressure.**

Q5 Why can't jatropha be used on a large scale? Give <u>one</u> answer.

Paragraph 9 states that jatropha is "…. *a wild plant*" and that it is "….*in need of crop improvement*". For these reasons, we are told "….*expecting [jatropha] to substitute significantly oil imports in developing countries is unrealistic*."

Therefore, possible answers to Q5 include **(it's) a wild plant, needs crop improvement** and **cannot substitute for oil.**

Q6 Why have recent attempts to increase the production of jatophra been problematic?

In the final paragraph, we learn that "…*actual investments and policy decisions on developing jatropha as an oil crop have been made without the backing of*

sufficient science-based knowledge". The words "*developing jatropha*" imply "*increasing production*".

Therefore, possible answers to Q6 include **insufficient /lack of science-based/ scientific knowledge** or **done without scientific knowledge** or **need to identify facts.**