

## Useful plants in Sudan <Part 4>

### Onion

The useful plant in the series this time is the onion. Traditionally in Sudan, onions have been used as a sauce ingredient for ‘asida’ (a sorghum flour paste), but recently onion consumption has been increasing, not only in the large market of the Khartoum metropolitan area but also in small and medium-sized markets in each state throughout the year. Over the past decade the development of infrastructure and logistics, the addition of storage facilities such as drying and refrigeration, and the expansion of interstate and intercity distribution networks have led to activate long-distance commerce and transportation by truck. This is said to be a major reason why onions are now relatively stably supplied to the market. However, a look in detail at the distribution situation shows that onions accumulated in the Khartoum metropolitan area are often returned back and distributed to small city markets in rural areas, and that it is not always the case that onions are transported over short distances between production areas in neighboring states. It is difficult to say that local production for local consumption is being implemented in rural areas through efficient trading.

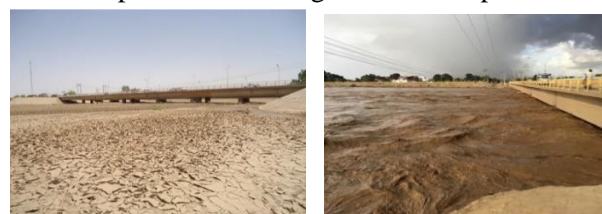
Onions and other vegetables mass-produced in open fields are subject to harsh natural conditions which have a large impact on cultivation and storage management. As mentioned in AAINews No. 106, the extremely high temperature of the summer season (June-July) in Sudan is a so-called “dead season” for open field cultivation and the productivity of crops and vegetables such as onions has been limited seasonally. With this high temperature period being a constraint, onion production follows a winter cropping system with one crop per year from Autumn to Spring. This seasonal change in productivity and storability causes an imbalance between supply and demand, and it creates wild fluctuations in market prices depending on the year and season. Under such circumstances, the idea of introducing electric dryers in order to level out the distribution volume was an effective initiative. In the past article in AAINews, we showed our attempts to adjust production value addition and reduction of waste

through dry processing.

As described above, onions are produced once a year but due to the vast land area of Sudan, differences in regional weather conditions among production areas will result in slight “lags in timing of cultivation”. For example, in desert climates such as River Nile State, although there is sufficient irrigation water, one of the major characteristics of the production area is that the high temperatures during the summer dead season continues uninterruptedly, i.e. there is only one high temperature peak per year. Therefore, farmers in the state have no choice but to start sowing in September. On the other hand, in Kassala State in the east, the Gash River, a seasonal river, begins to flood dramatically from June to August, when rainfall begins in the upper areas of the border with Eritrea and Ethiopia. Due to this natural phenomenon, the high summer temperatures that have been occurring since April temporarily ease in the riverside gardening area (Sawagi), making the area a little cooler. When the flowing water period ends and the Gash River returns to its original dry valley (Wadi) condition, the temperature gradually starts rising again. In other words, around Kassala, the Gash River separates the high summer temperatures into two peaks. The onion-producing areas in Kassala State take advantage of this microclimatic condition, as farmers start sowing in July when the temperature is relatively low. In this way, Kassala’s “early field onions” will have a comparative advantage in terms of price.



Harvesting onions in the field



Gash river in winter season (left) and summer season (right)

I have focused on the regional differences in onion cropping systems that affect distribution and stable supply, but there are other interesting points of discussion regarding the characteristics of onions in Sudan, such as seed production. I would like to consider these on another occasion.