



SPACING AND SEED RATE

- ☀ Plant population may be defined as the number of plants per unit area in the cropped field
- ☀ If the population is less than the desired number the stand is called sub normal or poor and if the population is more than optimum it is called hyper normal or heavy plant density
- ☀ Plant population (seed rate) and orientation of rows of crop influence WUE indirectly by influencing the interception and utilization of incident solar energy that influence crop yield

Fertilizer

- ☀ Fertilizers can also have a very marked effect on crop yield and water-use efficiency
- ☀ Nitrogen, phosphorus, combination of chemical fertilizers with organic fertilizer or chemical fertilizer with bio-fertilizers has been shown to increase growth and development in both dry and irrigated areas
- ☀ Reduction in nitrogen dose tended to decrease water-use efficiency; it was partially because of marked decline in transpiring surface, less stomata conductance and less extraction of available soil moisture in plant
- ☀ Increased fertilizer doses from lower to higher increased water use efficiency



Conclusion

It can be concluded that water-use efficiency can be increased by using the suitable variety of mustard and fennel, appropriate method and timely sowing of wheat, mustard, maize and green gram, narrow spacing of wheat, irrigating different crops at suitable growth stages and at IW/CPE ratio in mustard and maize, using sprinkler and drip irrigation methods in potato, weed control measures either by HW or with herbicide, using mulching and antitranspirants like cycocel, PMA and intercropping of Pearl millet with pigeon pea and mothbean. Thus it is clear that it is not just one factor has led to the higher water-use efficiency but rather than the combination of appropriate fertilizer use, efficient weed control, method and time of planting/sowing, row spacing, irrigation method and scheduling, intercropping, moisture conservation practices, mulching and antitranspirants

