**FEATURE – USDA STUDIES PLANT REPRODUCTION**

INTRO: Understanding the complexities of plant reproduction could help produce heartier plants that grow in more places. The USDA's Bob Ellison has more from Albany, California. (1:35) (refeed from 8/08)

U-S DEPARTMENT OF AGRICULTURE MOLECULAR GENETICIST SHEILA MCCORMICK STUDIES HOW PLANTS REPRODUCE. WORKING AT THE AGRICULTURAL RESEARCH SERVICE FACILITY IN ALBANY, CALIFORNIA, MCCORMICK AND HER COLLEAGUES STUDY THE COMPLEX PROCESS OF PLANT REPRODCUTION.

Sheila McCormick, USDA ARS Plant Molecular Geneticist: Plants reproduce just like animals reproduce, except in plants it's more complicated because plants have two sperm cells and two fertilization products in the female.

MCCORMICK STUDIES THE ROLE POLLEN PLAYS IN GROWING FLOWERING PLANTS. AND NOT JUST FLOWERS IN GARDENS AND PARKS, BUT THE FLOWERING PLANTS THAT ARE MANY OF THE FOODS WE EAT. WITHOUT POLLINATION MUCH FRUIT AND VEGETABLES GROWTH WOULD BE HINDERED. THE WORK OF MCCORMICK AND HER TEAM HELPS RESEARCHERS IN OTHER LABS AROUND THE WORLD.

McCormick: My lab spent a lot of time developing tools so that other people can also study pollen development and reproductive biology. So for example we isolated control regions of genes that are specifically expressed in pollen and we've given those to hundreds of labs around the world.

MCCORMICK SAYS HER AND HER TEAM'S WORK IS HELPING RESEARCHERS TRYING TO CROSS-BREED WILD AND DOMESTIC VERSIONS OF CROP PLANTS TO GROW IN LESS HOSPITABLE CLIMATES.

McCormick: The reason plant breeders would like to do that is because useful things like disease resistance and salt tolerance and drought tolerance are in wild species. That's one reason why they're wild. They can grow in those environments and the cultivated ones don't have that.

Bob Ellison, USDA: Scientists are hoping to alter gene activity that blocks the fertilization of certain wild species with their domesticated cousins. I'm Bob Ellison in Albany, California for the U-S Department of Agriculture.