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The increase in world population makes it necessary to enhance the efficiency of food production, and agricultural tasks in general. Therefore, optimization problems arise in many segments of precision agriculture, and given their complexity, advanced heuristic algorithms are needed for their solution. Here, I will present two important tasks and their suggested solutions. The first task is the optimization of crop planting time, with the objectives of improving both effectiveness and efficiency of the production. The second task is the optimization of unmanned ground vehicle routing through blueberry fields, which must account for the characteristics of the field and the UGV. To solve both problems, we utilize heuristics based on adaptive large neighborhood search [1]. In the former, NSGA-II [2] is also used.

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